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Senator Barbara Boxer

U.S. Representative Janice Hahn

Heal the Bay

Los Angeles County
Flood Control District

Santa Monica Bay Restoration
Commission

West Basin Municipal
Water District

Water Replenishment District
of Southern California

Mayor Frank Scotto

City of Torrance

Stormwater Basin Recharge and Enhancement

Water SMART: Water and Energy Efficiency Grants for Fiscal Year 2012

PREPARED FOR:
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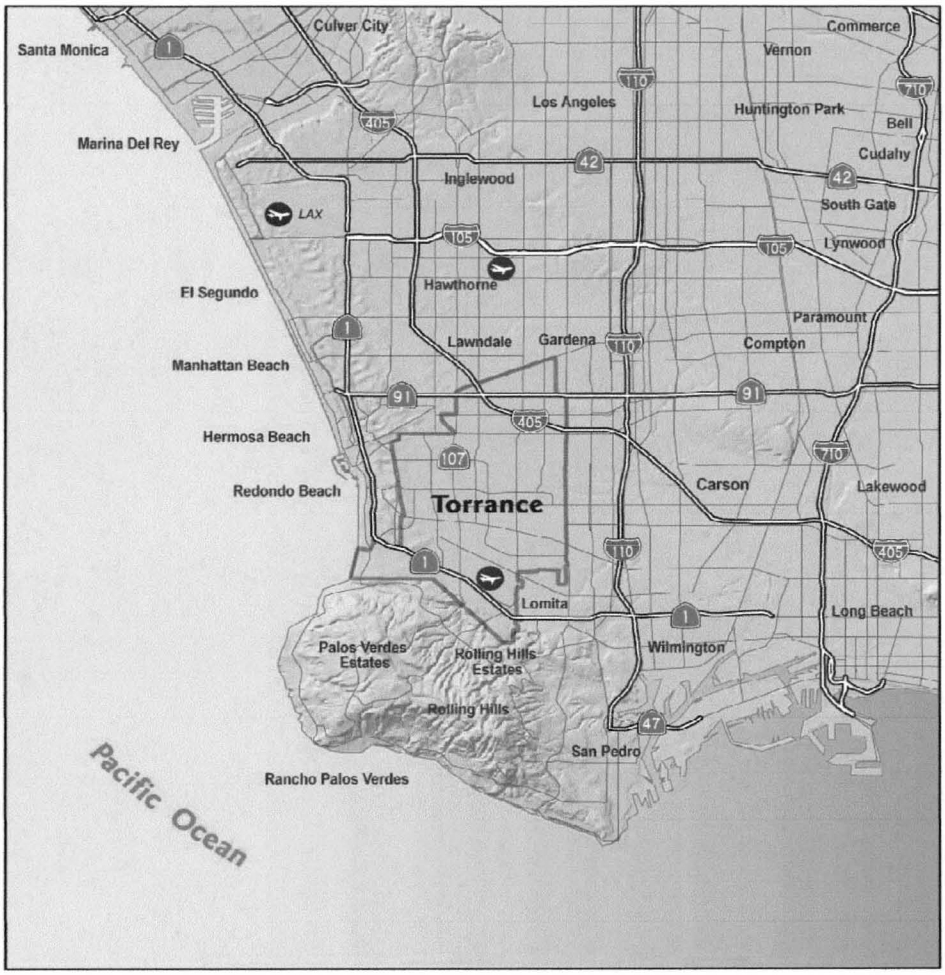
January 19, 2012



Torrance is California's 35th largest city, covering 21 square miles, with a population close to 150,000. Torrance is the 8th largest city in Los Angeles County.

The City of Torrance City Council approved the application for the Water SMART: Water and Energy Efficiency Grant Program on December 20, 2011.

Frank Scotto, Mayor
Gene Barnett, Council Member • Tom Brewer, Council Member
Pat Furey, Council Member • Cliff Numark, Council Member
Susan M. Rhilinger, Council Member • Bill Sutherland, Council Member

LeRoy J. Jackson, City Manager

Table of Contents

SECTION 1: TECHNICAL PROPOSAL

Technical Proposal and Evaluation Criteria

The technical proposal and evaluation criteria ***(50 pages maximum)*** includes: (1) the Executive Summary, (2) Background Data, (3) Technical Project Description and (4) Evaluation Criteria.

(1) Technical Proposal: Executive Summary

Date:	January 19, 2012
Applicant Name:	City of Torrance
City:	Torrance
County:	Los Angeles County
State:	California

Project Summary:

The Stormwater Basin Recharge and Enhancement Project will recharge groundwater and greatly improve water management at three stormwater detention basins in Torrance, California. The project is well aligned with Bureau of Reclamation (BOR) overarching goals to manage, develop and protect water and other resources in an environmentally and economically sound manner. The project addresses each of the following **Tasks Areas**:

Task Area A Water Conservation and Improved Water Management: The project will conserve water and recharge groundwater, approximately 325 Acre Feet per Year (AFY). In addition, all of the stormwater that flows into the three basins will be better managed via trash screens, wetlands treatment and the construction of infiltration areas.

Task B: Energy Water Nexus: This project improves the efficiency of water management by replenishing over drafted groundwater supplies. The State of California is seeking to rely more on local water sources rather than imported water sources. A tremendous amount of energy is expended to pump water (3,000 kWh to pump one AF) over mountain ranges and into Southern California.

Task C: **Benefits to Endangered Species:** The project will create and protect potential habitat for at least one federally listed endangered species and more than a dozen State threatened species. The habitat is critical in the highly developed urban area of Los Angeles County. The improvements to the basins will restore native vegetation, create wetlands, and make additional water available to all wildlife including many species of special concern.

Task D: Water Marketing: Through groundwater recharge, the project supports the wholesale of critical local groundwater supplies to 26 water jurisdictions which provide water in Southern California.

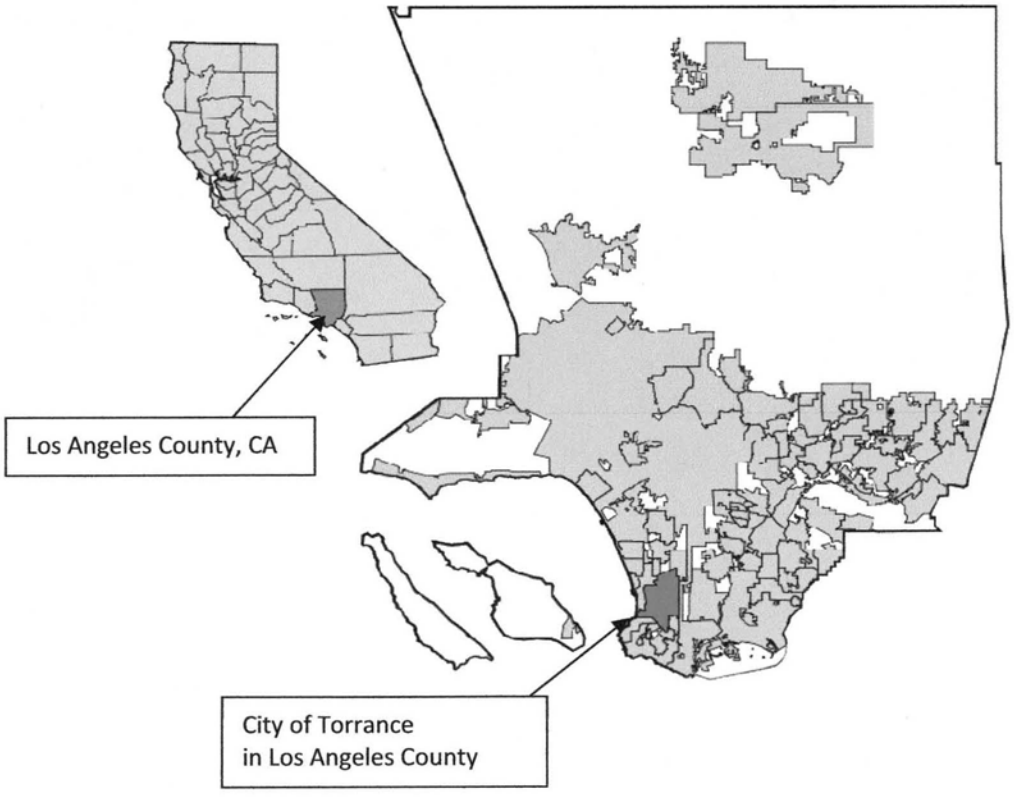
The requested funds ($300,000) comprises 6.8% percent of the $4.4 million total project cost and will provide the remaining resources needed to complete the project. The project construction schedule is less than two years with work to begin in 2012 and all work completed in 2013.

(2) Technical Proposal: Background Data

Provide a map of the area showing the geographic location (include the State, county, and direction from nearest town). As applicable, describe the source of water supply, the water rights involved, current water uses (i.e., agricultural, municipal, domestic, or industrial), the number of water users served, and the current and projected water demand. Also, identify potential shortfalls in water supply.

Torrance, CA (population 149,111) is located in southwestern Los Angeles County in the highly urbanized South Bay region. The City's public water utility, the Torrance Municipal Water Department (TMWD) provides water to a service area of 114,800 customers. The service area is estimated to increase to 120,800 customers by 2030 based on the projected population growth.

Exhibit 1
Geographic Location



Water Supply and Demand. Water sources currently available to TMWD consist of imported water purchased from the Metropolitan Water District (Metropolitan), groundwater, desalinated groundwater, and recycled water. Imported water supplies are delivered to TMWD by Metropolitan which diverts water from the Colorado River Aqueduct (CRA), and from Northern California via the California Aqueduct, also known as the State Water Project (SWP). TMWD currently receives approximately 69 percent of its water supply from Metropolitan (imported) and 31 percent from a combination of local supplies.

Local supplies include groundwater, desalinated groundwater, and recycled water. TMWD maintains four water storage reservoirs ranging in capacity from 0.9 million gallons (MG) to 18.7 MG with a total capacity of 31.5 MG. TMWD has five imported water connections with a total capacity of 33,666 gallons per minute (GPM) to receive Metropolitan water. TMWD also has one active well (Well #6) and one inactive, or standby well, (Well #7) to pump groundwater from the West Coast Basin. TMWD is also considering the construction of a well field in north Torrance to allow TMWD to enable pumping up to its full groundwater rights. Torrance groundwater supplies are regulated through adjudication and the City is permitted to pump 5,640 AFY however, in the past five years the City has pumped an average of 858 AFY. The TMWD delivers approximately 28,081 acre feet (9.1 billion gallons) of both potable and recycled water supplies to residential, business and industrial customers in the City. It maintains 320 miles of distribution pipelines.

Exhibit 2. Torrance is a coastal community in southwestern Los Angeles County. Its boundaries are: the cities of Lawndale and Gardena to the north; the City of Los Angeles to the east; the cities of Lomita, Rolling Hills Estates and Palos Verdes Estates on the south; and the Pacific Ocean and City of Redondo Beach to the west.

The City of Torrance is located in a semi-arid environment. The area must depend on imported water supplies since natural precipitation and groundwater are not adequate to provide enough water for the densely-populated city. During the 20th century, California has experienced three periods of severe drought. Due to this climate, the City of Torrance is vulnerable to water shortages.

The City of Torrance and all southern California water suppliers are facing

increasing challenges in their role as stewards of water resources in the region. There is a growing gap in Southern California between its water requirements and its firm water supplies. The California Department of Water Resources predicts statewide water shortages of two to six million acre feet per year by the year 2020.

By recharging groundwater and using less imported water, this project takes critical steps to preserve and protect local water supplies for the long term. The improvements proposed within demonstrate Best Management Practices (BMPs) for stormwater treatment and utilization. Enhancement to the Torrance storm water detention basins will result in multi-faced benefits including: cleaner, treated water leaving the basins and draining to the Santa Monica Bay, water recharged into the local aquifer, potential habitat for endangered species and conservation of potable water.

Relationship with Reclamation

There is a direct link from this project to a Bureau of Reclamation project at the West Basin Municipal Water District. West Basin is partnered with BOR for the Anza Avenue Recycled Water Lateral pipeline. Construction of approximately 14,500 lineal feet of eight, six and four-inch diameter recycled water pipeline is complete. This project will retrofit Entradero Basin and Park in order to utilize recycled water from the Anza Lateral. This is the largest City site that the Anza Avenue Lateral was constructed to serve. This will allow the City to conserve the 25 acre feet of potable water currently used.

Technical Proposal: Technical Project Description

The technical project description should describe the work in detail. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal.

The City of Torrance proposes a number of Best Management Practices (BMPs) in the Stormwater Basin Recharge and Enhancement Project in order to conserve water, recharge the aquifer, create critical habitat and improve water quality that drains into the Santa Monica Bay, an impaired water body.

Historically, the basins have served as a temporary place to capture stormwater (urban runoff) before the water flows to the Herondo Drain which releases the water into the Pacific Ocean. This has proven to be problematic given the high levels of bacteria from the Herondo Drain that are contaminating the Santa Monica Bay and its beaches. This Stormwater Basin Recharge and Enhancement project proposes significant advances over the current system by passively treating (cleaning) the stormwater with wetlands at the detention basins and using it to recharge vitally needed groundwater supplies. The project includes improving the hydraulics (movement of the water), constructing wetlands and other natural filters, creating infiltration areas to recharge groundwater, reducing stagnant water and bacterial concentrations, and improving water-related habitat for endangered or threatened species.

The following specific project descriptions are provided for each Basin:

Amie Basin:

1. Construction of a 2-acre wetland for storm water treatment, which includes several marshes of various depths that support the growth of different wetland plant species. Construction will include the clearing and grubbing of non-native plants and re-planting with native and wetland-suitable plants and trees.

2. Installation of a one-horsepower, energy-efficient submersible sump pump and 500 linear feet of irrigation pipelines to circulate and oxidize the storm water, provide UV exposure to kill bacteria, and promote wetland growth.

3. Installation of 120 trash screens to trap and remove solid waste from flowing into the basins from the stormwater inlets. BMPs that are effective in reducing debris and concentrations of total suspended solids (TSS) are a key focus of this project. By nature, bacteria are not free swimmers and prefer being attached to a substrate for growth and reproduction. Therefore, BMPs that reduce debris and TSS loads also tend to be effective in reducing bacterial concentrations.

Henrietta Basin:

1. The construction of a 3-acre wetland for storm water treatment, which includes several marshes of various depths which support the growth of different wetland plant species. Clearing and grubbing of non-native plants and re-planting with native and wetland-suitable plants and trees will occur. This basin is particularly well-suited for the development of constructed wetlands due to its size and slope which allows water to flow through the wetland toward the infiltration area.

2. Construction of a 1,240-square-foot infiltration area which will be located at the end of the wetlands treatment and prior to the pump station intake.

3. Installation of an energy-efficient, one-horsepower submersible sump pump and 500 linear feet of irrigation pipelines to circulate and oxidize the water, provide UV exposure to kill bacteria, and promote wetland growth.

4. Installation of 120 trash screens to trap and remove solid waste from flowing into the basin from the stormwater inlets.

Entradero Basin:

1. The construction of a 15,031-square-foot infiltration area.

2. The installation of a sediment/trash basin formed by a rock-walled berm to capture trash and sediment from the main flood control channel. This berm would be formed as a part of the bridge and road, and trap trash and sediment flowing from the main flood control channel. This berm will effectively provide an initial filtration of the water as it flows in to the basin. ***The Entradero Basin is open to the public and includes public park facilities.***

3. Installation of the new catch basin, containing a media filter, trash and bacteria insert, inside the dog park to capture and treat runoff from this specific area of the site.

4. Installation of 1,800 linear feet of irrigation pipeline and fittings to provide recycled water irrigation to the ball fields and landscaped areas.

5. Installation of 130 trash screens to trap and remove trash from flowing into the basin from the stormwater inlets.

Note to Reviewers: Designs for each of the basins follow on pages 17-19. These designs had to be reduced in order to comply with the 8 ½ X 11 page size limitation. Larger scale PDFs can be provided immediately upon request.

Exhibit 3
Basin Location Map

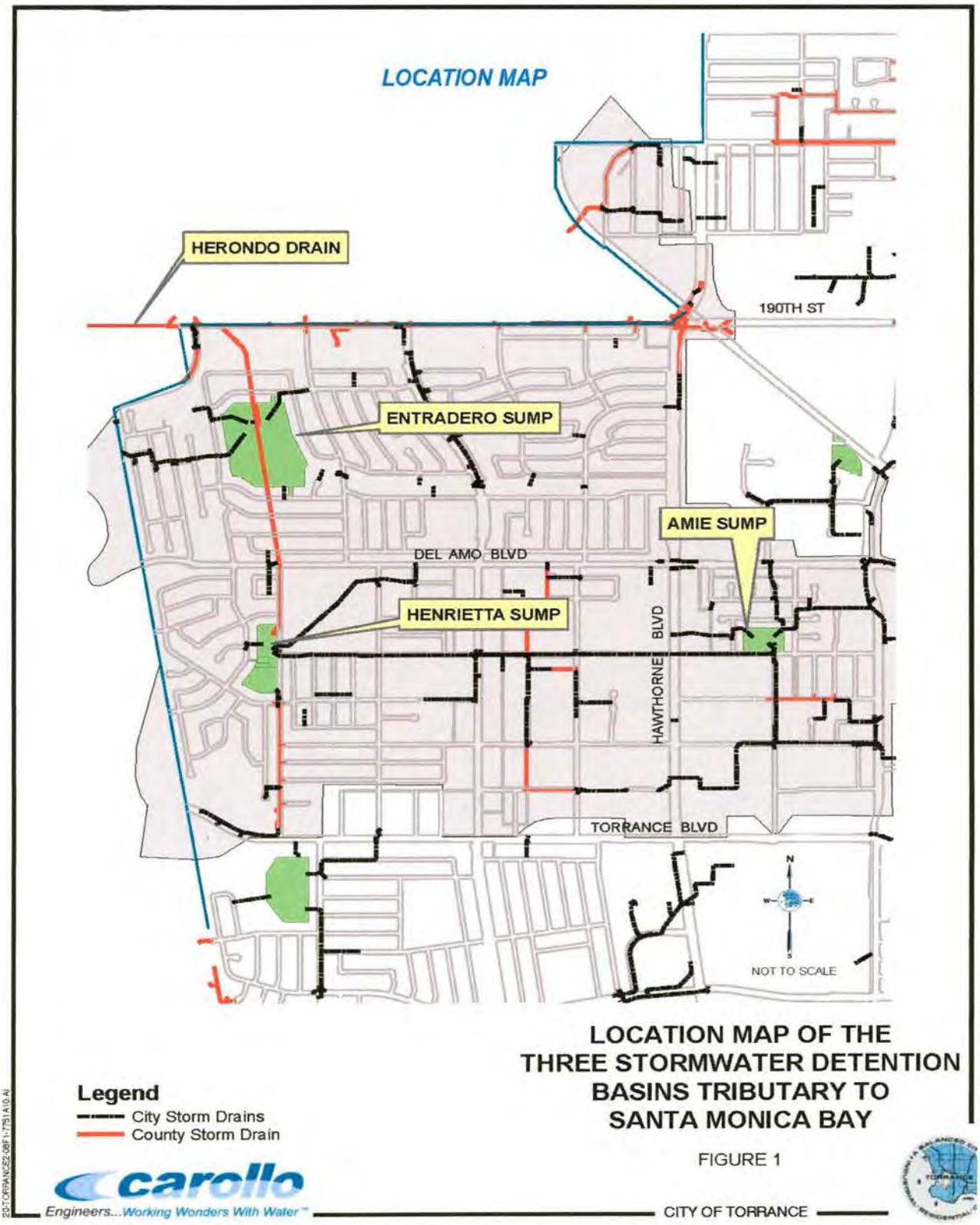
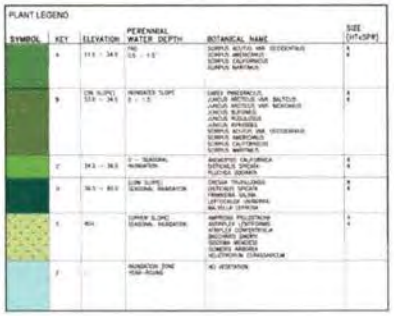


Exhibit 4

Landscape Plan and Imagery



A

C

B

D

E

Amie Basin

City Of Torrance Stormwater Basin Design

AHBE

Stormwater Basin Recharge and Enhancement

Exhibit 5

Landscape Plan Alternate 2

Stormwater Basin Recharge and Enhancement

Exhibit 6

Landscape Plan Alternate 2

Entradero Basin

City Of Torrance Stormwater Basin Design

AHBE

(4) Technical Proposal: Evaluation Criteria

The Evaluation Criteria portion of your application should thoroughly address each of the following criterion and subcriterion in the order presented to assist in the complete and accurate evaluation of your proposal. The Evaluation Criteria comprise 100 points of the total evaluation weight. Please note that projects may be prioritized to ensure balance among the program Task Areas and to ensure that the projects address the goals of the WaterSMART program.

Evaluation Criterion A: Water Conservation (32 points)

Up to 32 points may be awarded for a proposal that will conserve water and improve efficiency. Points will be allocated to give consideration to projects that are expected to result in significant water savings.

Evaluation Criterion A: Water Conservation

Note to Federal Reviewer: This project has separate components that will result in both quantifiable water savings and improved water management; therefore this application will respond to both (a) and (b).

Subcriterion No. 1(a) Quantifiable Water Savings

Describe the amount of water saved. For projects that conserve water, state the estimated amount of water conserved in acre-feet per year that will result as a direct benefit from this project. Please provide sufficient detail supporting the estimate, including all supporting calculations. Please also include the following:

- What is the applicant's average annual acre-feet of water supply?
- Where is that water currently going (i.e., back to the stream, spilled at the end of the ditch, seeping into the ground, etc.)?
- Where will the conserved water go?

Water Conservation: This project will conserve approximately 325 AFY. This savings is comprised of the following conservation enabled by the project:

1. Groundwater Recharge:

The City estimates the new infiltration areas at the basins will restore approximately 300 AFY into the local groundwater table. Overall groundwater level tracking is conducted by the Water Replenishment District. Pre and post-project levels will be compared as an overall measure of groundwater recharge. A major emphasis at each of the basins is to utilize ground infiltration of treated stormwater to the greatest extent possible. In each case, the stormwater will flow through the basins and be treated with processes including trash screening, sedimentation sifting, wetlands treatment, etc., prior to being infiltrated.

The City conducted soil boring tests to assess a groundwater infiltration rate at each of the basins. The data confirmed that the greatest groundwater recharge will occur at Entradero and Henrietta Basins. Actual groundwater recharge will vary with rainfall but, the projection of 300 AFY estimated to be infiltrated is based upon the following infiltration test results:

Table 1
Infiltration Test Results

Infiltration Test Number/ Basin location	Depth of test	Soil Description (USGS Symbol)	Infiltration Rate (cm/hr)
1/Amie	Ground surface	Silty Clay Sand (SC-SM)	0.21
2/Amie	Ground surface	Silty Clay Sand (SC-SM)	0.21
3/Henrietta	Ground surface	Silty Sand (SM)	3.15
4/Henrietta	Ground surface	Sand with Silt (SP-SM)	7.62
5/Entradero	Ground surface	Silty Sand (SM)	3.63
6/Entradero	Ground surface	Silty Sand (SM)	2.88

Geotechnical Investigation for Torrance Proposed Stormwater Basin Enhancement Project conducted by Testing and Engineering Inc. May 2011.

Describe the source of the water to be used for recharge and what percentage of the recharged water is going to be available for use and how it will be used. Describe how this supply of water will offset other supplies. The source of the water to be recharged is stormwater or urban runoff. Currently, the three basins function as a "catch and release" system, capturing stormwater temporarily then releasing it out to the Herondo Drain. As a result of the project, almost all of the stormwater will, instead, remain on the sites for wetlands treatment and groundwater recharge. Only the largest rainfall events will result in excess water leaving the basins to the Herondo Drain. 100% of the recharged groundwater could be available for use. The City is currently not utilizing its full adjudicated groundwater pumping rights. However, in times of drought or other water emergencies, local water supplies (groundwater) will be paramount. Building up and replenishing overdrafted local water supplies will help reduce the City of Torrance's reliance on imported water supplies. Currently, the City imports most of its potable water supplies (69.9%). Groundwater accounts for only 3.1% of the City's water supply.

If water savings are based on reduced surface water storage evaporation, provide calculations for reduced evaporation losses.
Water savings are not based upon reduced evaporation.

2. Switching from potable water to recycled water for irrigation at Entradero Park. This will save 25 AFY that is used to irrigate ball fields and landscaping surrounding this detention basin. This project will complete the retrofit the City's largest and final site for recycled water irrigation (Entradero Basin and Park) from the BOR recycled water pipeline.

Was historical water consumption data evaluated to estimate average annual turf consumptive use per unit area? If so, did the evaluation include a weather adjustment component?

Yes. Historically water consumption for irrigation use at Entradero Basin/Park has been 25 AFY. Turf for sports fields will remain at the Entradero site however; other native and drought tolerant landscaping will be planted to reduce irrigation requirements. As a result of the project all the irrigation which is currently from potable water will be replaced with recycled water. The evaluation is based upon a normal rainfall year. Additional savings would result in dry or multiple dry years when more water has been needed.

How will actual water savings be verified upon completion of the project?
Actual water savings will be verified by the pre and post project meter readings for potable water at Entradero Park; when recycled water replaces potable water for irrigation. Minimal potable water use will still be necessary for drinking fountains and restrooms.

Annual Acre Feet of Water Supply: The City's average annual acre-feet of water supply is approximately 28,081 AFY (average 2005-2010). Table 2 provides a breakdown of the current and projected water supply, by source. Projections are based on normal water years (not dry or drought conditions). Potable water usage in Torrance is 42.2% residential, 11.7% percent commercial, 12.3% industrial, 3.4% irrigation, and 7.6% miscellaneous. The projected use reflects a paradigm shift in water usage from imported supplies to local supplies (up to the adjudicated amount Torrance is allowed to pump). Previously, local water supplies accounted for only 3.1% of Torrance supply. Moving forward; groundwater will make up more than 15% of the City's water supply. This underscores the importance of this project since it will replenish groundwater to ensure that groundwater reserves are sufficient to allow for the increase in utilizing the local water source.

Table 2
City of Torrance
Current and Projected Water Supplies (AFY)

Water Supply Sources	% of Average Annual Supply	**Average Annual Supply 2005-2010**	2015	2020	2025	2030	2035
Imported Water	69.9%	**19,602**	20,967	20,967	20,967	20,967	20,967
Local Supply (Groundwater)	3.1%	**878**	5,640	5,640	5,640	5,640	5,640
Local Supply (Desalter)	5.3%	**1,494**	2,400	2,400	2,400	2,400	2,400
Recycled Water	21.7%	**6,107**	6,500	6,650	7,150	7,150	7,150
Totals	100%	**28,081**	35,507	35,657	36,157	36,157	36,157
Source: Urban Water Management Plan, 2010							

Water Destination: As is the case in most cities, after use, water either flows to the sanitary sewer facility or into the storm drain system. The Torrance Public Works Department maintains

local sewer and storm drain systems. The Los Angeles County Sanitation District (LACSD) is the regional agency responsible for the collection and treatment of wastewater. ***There are limited opportunities for groundwater recharge in Torrance due to the highly urbanized, densely developed, hard-surfaced nature of the City. Wetlands and infiltrations basins, such as the ones proposed in this project, are critical in Southern California.***

Subcriterion No. 1(b)—Improved Water Management:
*Up to **5 points** may be awarded if the proposal will improve water management through measurement, automation, advanced water measurement systems, through implementation of a renewable energy project, or through other approaches where water savings are not quantifiable.* **Describe the amount of water better managed.** For projects that improve water management but which may not result in measurable water savings, **state the amount of water expected to be better managed, in acre-feet per year and as a percentage of the average annual water supply.** (The average annual water supply is the amount actually diverted, pumped, or released from storage, on average, each year. This does not refer to the applicant's total water right or potential water supply.) Please use the following formula: Estimated Amount of Water Better Managed divided by Average Annual Water Supply.

This project is estimated to better manage approximately 6.71 percent of the City's annual water supply calculated and described as follows:

Estimated amount of water better managed:	1,886 AFY (see narrative below)
Average annual water supply:	28,081 AFY
Calculation:	1,886 as a percentage of 28,081 = ***6.71%***

The amount of water which will be ***better managed*** is comprised of the total water capacity at each of the three basins (321 AF total), plus the water that is currently drained from Torrance through the Herondo Storm Drain (1,565 AF). Total water better managed is combined for a total of 1,886 AFY.

Improved water management is at the heart of this project. Utilizing the green spaces, constructing wetlands and infiltration basins, and removing bacteria from the stormwater which flows to these three basins is logical and efficient. In addition, the project will reduce the amount of water flowing to the Herondo Drain (and ultimately the ocean) and the water that is released will be much cleaner having been naturally filtered through the wetlands system. Only the most significant rain storms will send water from the three basins to Herondo Drain.

Subcriterion No. 2—Percentage of Total Supply:
*Up to **8 additional points** may be allocated based on the percentage of the applicant's total average water supply that will be conserved directly as a result of the project.* **Describe the percentage of total water supply conserved:** State the applicant's total average annual water supply in acre-feet. Explain how this calculation was made.

This project is estimated to conserve approximately 1.16 percent of the City's annual water supply, calculated as follows:

Average annual water supply:	28,081 AFY
Estimated water conserved as result of project:	325 AFY
Calculation:	325 as a percentage of 28,081 = ***1.16%***

Subcriterion No. 3—Reasonableness of Costs:
*Up to **4 additional points** may be awarded for the reasonableness of the cost for the benefits gained.* Please include information related to the total project cost, annual acre-feet conserved (or better managed), and the expected life of the improvement. Use the following calculation: Total Project Cost divided by (Acre-Feet Conserved, or Better Managed x Improvement Life) **Failure to include this required calculation will result in no score for this section.** For all projects involving physical improvements, specify the expected life of the improvement in number of years.

This project is estimated to cost $117 per acre foot of water over a 20-year project useful life, calculated as follows:

Total Project Cost:	$4,400,000*
Estimated water better managed:	1,886 AFY
Life of Improvements:	20 years
Calculation:	1,886 AFY x 20 years = 37,720 AF Lifetime
	$4,400,000 divided by 37,720 = ***$117/AF***

*see budget details located in Section 9 for project cost information

Evaluation Criterion B: Energy-Water Nexus (16 points)
*Up to **16 points** may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency.*

For projects that include construction or installation of renewable energy components, please respond to Subcriterion No. B1— Implementing Renewable Energy Projects Related to Water Management and Delivery.

If the project does not implement a renewable energy project but will increase energy efficiency, please respond to Subcriterion No. B2— Increasing Energy Efficiency in Water Management.

Subcriterion No.B1— Implementing Renewable Energy Projects Related to Water Management and Delivery

This project will address Subcriterion No.B2.

Subcriterion No.B2—Increasing Energy Efficiency in Water Management

If the project is not implementing a renewable energy component, as described in subcriterion No. B1 above, up to ***4 points*** *may be awarded for projects that address energy demands by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions.* **Describe** any energy efficiencies that are expected to result from implementation of the water conservation or water management project (e.g., reduced pumping). Include support for the calculation of any energy savings expected to result from water conservation improvements. **Describe** any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).

This project will result in increased energy efficiency in water management by reducing the amount of current water pumping from sources outside the region. The three stormwater detention basins are currently designed so that all water that flows in (through storm drains) subsequently drains out. The basins are not designed for infiltration. This proposed passive water treatment system is an ideal solution to more efficiently treat and use the stormwater on the three sites.

Replenishing Local Groundwater Sources reduces reliance on Imported Water. By constructing wetlands treatment and infiltration basins at the sites, the stormwater will be utilized on site in order to recharge the groundwater. The City receives 69% of its water from the Metropolitan Water District. As noted previously, Metropolitan draws water from the Colorado River Project and the State Water Project, (SWP). The SWP is the single largest user of energy in California, using vast amounts of energy to pump water 2,000 feet over the Tehachapi Mountains- the highest lift of any water in the world. *(Energy Down the Drain: The Hidden Costs of California's Water Supply. August 2004. Pacific Institute and Natural Resources Defense Council. http://www.nrdc.org/water/conservation/edrain/edrain.pdf.)*

Describe any energy efficiencies that are expected to result from implementation of the water conservation or water management project (e.g., reduced pumping).

Current Pumping Requirements:

The amount of potable water (25 AFY) that is estimated to be saved by this project will result in measurable energy savings. Based on energy consumption of 3000 kWh to pump one AF over the mountains from the California Bay Delta, the energy savings is calculated to be $9,930 based on energy costs of .1324 per kWh, over the 20 year life of the project (25 AFY X 3,000 kWh =75,000 kWh, 75,000 kWh X .1324 =$9,930). That amounts to 1,500,000 kWh saved during the 20-year life of the project. (*Kilowatt-hours required were determined based on the Natural Resources Defense Council report entitled, Energy Down the Drain: The Hidden Costs of California's Water Supply, page 9. Average cost of kWh in California was derived from the U.S. Energy Information Administration Form EIA-861 Annual Electric Power Industry Report, 2009.*)

In addition, stormwater currently flows from the basins to the ocean through the Herondo Drain. The improved basins will capture the stormwater flows and detain them for infiltration rather than releasing the water to the Herondo Storm Drain, except in rare times of heavy rainfall. The project will result in a 50% reduction in stormwater flows pumped from the

Herondo Storm Drain low-flow diversion pump station. In 2010, the pump ran every month using 10,923 kilowatt hours (kWh) of electricity. The project will reduce by half, the amount of water which needs to be pumped from the Herondo Storm, or about 5,461 kWh per year. Over the 20 year life of the project that savings will be 109,220 kWh.

Please provide sufficient detail supporting the calculation of any energy savings expected to result from water conservation improvements.
As detailed above, in total, the project will save over 80,000 kWh over the course of a year; 1,609,222 kWh over the course of the 20-year project life.

The calculations are as follows:

Energy saved by reduced pumping of imported water (replaced by using recycled water at Entradero Basin)	**Savings during one year**	**Savings during 20 year project life**
25 AFY x 3,000 kWh (required to import 1 AF)	75,000 kWh	1,500,000 kWh
Energy saved by reducing the pumping from the Herondo Drain		
Estimated 50% reduction of 10,923 kWh annual	5,461	109,220
TOTAL SAVINGS	**80,461**	**1,609,222**

Please indicate whether you energy savings estimate originates from the point of diversion, or whether the estimate is based upon an alternate site of origin. Because this project reduces the energy needed to pump imported water into the region *and* also reduces the energy necessary to pump stormwater to the ocean, the savings estimated originates from both alternative sources (the Colorado River or Bay Delta) and also the point of diversion (the basins).

Energy Required to treat water? High efficiency sump pumps will be used to disperse the stormwater through the created wetlands for treatment. Because the pumps have not yet been selected; their energy use cannot yet be calculated.

Does the calculation include the energy required to treat the water? No

Evaluation Criterion C: Benefits to Endangered Species (12 points)
Up to **12 points** may be awarded for projects that will benefit federally-recognized candidate species or up to **12 points** may be awarded for projects expected to accelerate the recovery of threatened species or engendered species, or addressing designated critical habitat. For projects that will directly benefit *federally-recognized candidate species*, please include the following elements:

(1) Relationship of the species to water supply
(2) Extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species

For projects that will directly accelerate the recovery of *threatened species or endangered species or address designated critical habitats*, please include the following elements:

(1) How is the species adversely affected by a Reclamation project?
(2) Is the species subject to a recovery plan or conservation plan under the Endangered Species Act?
(3) Extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species

This project protects and expands potential habitats which will benefit at least one Federally Endangered Species, one State threatened species, and 12 State protected species, as follows:

Table 3
City of Torrance, California
Species of Special Concern and Status

Species	Status
Least Bell's Vireo	**Federally Endangered Species**
California Legless Lizard	CA State Threatened, CA Species of Special Concern
Peregrine Falcon	CA Protected
Vaux's Swift	CA Species of Special Concern
Calliope Hummingbird	CA Protected, Audubon Society Watch List
Rufous Hummingbird	Audubon Society Watch List
Allen's Hummingbird	CA Protected, Audubon Society Watch List
Willow Flycatcher	CA Endangered, CA Protected, CA Species of Special Concern, Audubon Society Watch List
Hutton's Vireo	CA Protected, CA Species of Special Concern
Yellow Warbler	CA Protected, CA Species of Special Concern
California Towhee	CA Protected, Species of Local Concern
Tri-colored Blackbird	CA Protected, CA Species of Special Concern, Audubon Society Watch List
Lawrence's Goldfinch	CA Protected, CA Species of Special Concern, Audubon Society Watch List

Federally Endangered Species: The **Least Bell's Vireo** is listed as a federally endangered species. According to the U.S. Fish and Wildlife Service the decline of the Least Bell's Vireo is mostly due to urban development and projects that have changed the hydrology or eliminated habitats near waterways. This bird is occasionally seen in Torrance and has nested on the coastal plain. Two breeding pairs were observed in the nearby Ballona wetlands area in Torrance this past year. This was the first citing since the freshwater marsh was restored in 2003, and the Riparian Corridor was restored in 2008. Breeding was observed in both locations. According to the City's naturalist Tracy Drake, "These vireos seem to be increasing year-by-year as wetland areas are created with a canopy of willow and some dense underbrush." ***Drake notes that there is a very strong likelihood that these birds will find and attempt breeding in the wetlands created in Henrietta Basin.*** As a result, this project will accelerate the recovery of this endangered species.

Exhibit 7: The **Least Bell's Vireo** (*Vireo bellii pusillus*), is an endangered subspecies which has been observed near the project sites.

Adverse Affects: There are no known adverse affects to this species by a Reclamation project.

Subject to Recovery Plan: This species is subject to a recovery plan under the Endangered Species Act. The goal of the plan is to reclassify the Least Bell's Vireo from endangered to threatened, so that it is no longer in danger of extinction. This will be achieved by reducing threats and creating "a source population" in Los Angeles and Ventura Counties.

Improve Species Status: The wetlands created by this project are projected to improve the status of the species by providing a protective riparian habitat that will promote Vireo population expansions and recolonization.

Evaluation Criterion D: Water Marketing (12 points)

Up to **12 points** may be awarded for projects that propose water marketing elements, with maximum points for projects that establish a new water market. **Briefly describe any water marketing elements included in the proposed project.** Include the following elements:

(1) Estimated amount of water to be marketed

This project will supply critical groundwater resources and support the wholesale water market in California's West Coast Groundwater Basin. It embraces the Metropolitan Water District **Conjunctive Use Program**. The Conjunctive Use Program is the coordinated management of surface and groundwater supplies to increase the yield of both sources and enhance water supply reliability. The West Coast groundwater basins have the capability to store 450,000 AF of groundwater in conjunctive use programs.

(2) A detailed description of the mechanism through which water will be marketed (e.g., individual sale, contribution to an existing market, the creation of a new water market, or construction of a recharge facility)
Metropolitan's primary goal is to provide reliable water supplies to meet the water needs of its 26 member agencies, including the TMWD. As a wholesaler, Metropolitan has no retail customers, and distributes treated and untreated water directly to other water providers, such as TMWD. In the West Coast Groundwater Basins this primarily involves the storing of surplus surface water into the underground aquifers and extracting the supply during a drought or other emergency. The contributions of conjunctive use include the following:

- Operational flexibility for groundwater production
- Increased groundwater yield
- More efficient use of surplus surface water during wet years
- Better distribution of water resources
- Increased water supply reliability
- Financial benefits to groundwater users

(3) Number of users, types of water use, etc. in the water market
Parts of Los Angeles County and sixteen cities in addition to Torrance draw groundwater supplies from the West Basin.

The West Coast Basin Groundwater supply is comprised of four separate aquifers, or water bearing layers, underlying the City of Torrance. The Basin covers approximately 160 square miles. It is important to note that the Basin is currently in a critical overdraft (pumping out more groundwater than can be replenished). The average annual overdraft for the West Coast groundwater basin is 23,800 AF. The accumulated overdraft of the basins fluctuates depending on demands and availability of replenishment water. Sometimes imported water has to be purchased in order to recharge the aquifer. In an effort to eliminate long-term overdraft conditions, the Water Replenishment District (WRD) closely monitors the groundwater basins for fluctuations in groundwater levels. WRD utilizes a groundwater model developed by the United States Geological Survey (USGS) to study and better understand the Basin's reaction to pumping and recharge.

It is difficult, at this time, to estimate exactly how much groundwater will be replenished through the construction of the recharge facilities (infiltration areas) at the project sites. Soil boring tests have been conducted to establish an infiltration rate at each basin. Actual recharge will be a variable of rainfall amounts. The City estimates a minimum of 300 AFY will be recharged. Regardless of how much water the City of Torrance recharges into the aquifer, the amount of water it and other users are allowed to extract will remain legally regulated.

The Water Replenishment District will provide groundwater tracking prior to the project and after its completion. This data will provide a "big picture" of groundwater replenishment in all four of its aquifers. It will not provide groundwater replenishment data specific to the three project sites.

(4) A description of any legal issues pertaining to water marketing (e.g., restrictions under reclamation law or contracts, individual project authorities, or State water laws)
The West Coast Groundwater Basin is adjudicated, meaning there are court ordered restrictions on the amount of groundwater that can be pumped out and sold. Because of increasing populations and diminishing groundwater resources, the Los Angeles County Superior Court set limits in 1966 to the amount of groundwater that could be extracted for each water right holder within the basins. For example, the City of Torrance is allowed to pump 5,640 AFY. The City is has not previously been utilizing its full adjudicated pumping rights; but, as noted, its water use plans for the future include greater use of its groundwater resources. This underscores the need in Torrance and all Southern California communities to find ways to replenish groundwater supplies and counteract the overdraft and high costs of using imported water.

The monetary benefits of utilizing local water sources verses imported water are significant. For example, this project is estimated to recharge 300 AFY. If the City reduced its imported water by 300 AFY at a rate of $403.8 per AF, a savings of $121,140 would result. Groundwater reserves can replace imported water through conjunctive use agreements particularly in times of drought and other water emergencies.

(5) Estimated duration of the water market
The conjunctive use program is a long-term water market.

Evaluation Criterion E: Other Contributions to Water Supply Sustainability (12 points)
*Up to **14 points** may be awarded for projects that contribute to a more sustainable water supply in ways not covered by other criteria.*

This criterion is intended to provide an opportunity for the applicant to explain any additional benefits of the proposed project within the water basin, including benefits to downstream water users or to the environment. Please provide sufficient explanation of the expected benefits and their significance, including any information about water supply conditions within the basin (e.g., is the river, aquifer or other source of supply over-allocated?

Addressing Specific Concerns: The project will help to prevent a water-related crisis. It is important to elaborate on the significant impact this project will have in solving the problem of high bacteria levels that flow from the city's runoff into the ocean, sometimes closing local beaches because of health hazards. The Santa Monica Bay is listed on the California State Water Resources Control Board 303 (d) listing of impaired water bodies due to excessive levels of bacteria. The Herondo Drain is the only storm drain with a tributary area from Torrance which is not in compliance with the Wet Weather bacteria limits for beaches. The City of Torrance makes up 57 percent (or about 1,565 of the 2,745 acres) of the tributary to the Herondo Drain.

Higher bacterial densities tend to occur during the smaller rainfall events (one inch or less). During higher rainfall events in Torrance (that is, rainfall events greater than 1.5 inches) the

bacterial results are all very low due to the diluted storm waters that are coming through the basins and out from the Herondo Drain. The scope of work in this project is geared toward the smaller rainfall events by collecting stormwater flows, treating them to the maximum extent possible through wetlands or other natural filtration, and then infiltrating most of the water to the ground. The City wants to treat the most common storm events on the project sites to reduce bacterial levels to beaches by release only the diluted excess water.

The Stormwater Basin Recharge and Enhancement Project makes significant contributions to the Water Supply Sustainability. As previously described, the infiltration areas that are proposed at the three basins will recharge critically "over drafted" groundwater supplies. Southern California is in the difficult position of not having enough local water sources to sustain its population. Water is imported into the area but, replenishing and protecting the local ground water sources is of critical importance for the long term water needs of cities like Torrance. In times of drought, a well-charged aquifer will help stretch resources as far as possible. In addition, the urban green spaces and wetlands will provide much needed riparian habitat for at least one federally endangered species and 12 other California species of special concern.

Stakeholder Support and Collaboration: There is widespread support for the project from integral partners. These collaborative partners include the County of Los Angeles, West Basin Municipal Water District, Heal the Bay and the Water Replenishment District of Southern California. The significance of these partnerships is further detailed in the letters of support accompanying this application (see Section 7). In addition, the Santa Monica Bay Restoration Commission has awarded $3.3 million dollars toward the project. Ultimately, all key stakeholders have a vested interest in the sustainability and quality of water resources. This project presents a cost effective, efficient way to replenish groundwater, reduce bacteria flowing to beaches, and create wetland habitats.

Increase awareness of water and/or energy conservation and efficiency:
The City of Torrance will use this project to help emphasize water conservation and educate the public about the valuable groundwater recharge taking place at the Basins. The City will develop interpretive panels to explain how the infiltration systems function. These educational, visually descriptive signs will be installed at Entradero Basin (also a public park) and a new public viewing area at Henrietta Basin.

Evaluation Criterion F: Implementation and Results (10 points)
Subcriterion No.F 1—Project Planning
Points may be awarded for proposals with planning efforts that provide support for the proposed project. **Does the project have a Water Conservation Plan, System Optimization Review (SOR), and/or district or geographic area drought contingency plans in place? Is the project part of a comprehensive water management plan? Please self certify or provide copies of the plans.**

Planning Supporting Work: This project and the scope of work proposed are consistent with Torrance's Water Master Plan, the current Urban Water Management Plan, the Metropolitan Water District's 2010 Integrated Water Resources Plan, (IWRP) and the 2010 Regional Urban Water Management Plan (RUWMP). Specifically, this project underscores the importance of groundwater recharge which is noted as a "critical element in the maintenance of a healthy groundwater system" (page 2-12-14 in the IWRP). In the same report, Stormwater is noted as an often untapped source for sustaining water supplies. The augmentation of local water resources (specifically groundwater recovery) is listed as one of the key strategies (page 4-2) for ensuring that Southern California has enough water for the future.

Engineering/Design Work Already Completed: On April 24, 2007, the Torrance City Council approved a Consulting Services Agreement with Carollo Engineers for pre-design of stormwater treatment BMPs for Amie, Henrietta and Entradero Basins. The report is complete, the concept designs and Best Management Practices recommended in the Carollo Engineering report will be used for the final design and implementation of the construction. A contract for final design was awarded in 2011 and will be complete in 2012.

Meets Goals of State/Regional Water Plan: Specifically, this project addresses three goals of statewide and regional significance:

- The water conservation strategies inherent in the project will assist Torrance in doing its part to help the State of California reach its goal of reducing per capita water consumption by 20 percent by the year 2020.

- The project will address the Santa Monica Bay Beaches Bacteria exceedences. The Torrance City Council approved a multi-agency Memorandum of Agreement (MOA) on August 3, 2004 with the Cities of Manhattan Beach, El Segundo, Hermosa Beach, Redondo Beach, the County of Los Angeles and Caltrans to prepare an Implementation Plan. The Implementation Plan was submitted to the Board on July 15, 2005, and identified three approaches to address the high bacteria levels. The approaches outlined in the MOA include the creation of treatment systems to clean and/or infiltrate stormwater from the cities.

- The project will address the need to infiltrate and replenish "over drafted" groundwater supplies. Because the Southern California region is a region of natural water deficiency in relation to local consumption, water conservation is paramount. The City's Urban Water Management Plan sets forth strategies the City uses to ensure water service reliability during normal, dry, or multiple dry years. Like other communities in Southern California, Torrance will face additional water resource challenges in the future. Water shortages of two to six million AFY are predicted by 2020 for the state of California (www.gwrsystem.com/about/need.html).

Subcriterion No. F2—Readiness to Proceed

Points may be awarded based upon the extent to which the proposed project is capable of proceeding upon entering into a financial assistance agreement. Are all necessary plans/designs complete?

Project Readiness. This Stormwater Basin Recharge and Enhancement Project is ready to proceed. Pre-design work was completed in 2008 and final design is underway. The project has been cleared through the State environmental compliance process (CEQA). And, 94% percent of the funding has been secured for the project. This requested funding from the BOR will provide the necessary funds to complete the project. Assuming a grant agreement is executed in the second quarter of 2012 between Torrance and the BOR, the City will begin the NEPA environmental process immediately. It is expected that NEPA will be expedited (Categorical Exclusion) based upon the California Environmental Quality Act Notice of Exemption. The NEPA process will begin immediately upon the BOR grant award (assumed 2nd quarter 2012) and is estimated to be completed by the third quarter 2012.

Final design work is underway. During this phase, plans, specifications, and estimate are being developed along with the construction bid package. This final design phase is scheduled to be completed by the first quarter of 2012. By the 3rd quarter of 2012, the City expects to award the construction contract and have the kick-off meeting where a refined timeline and expectations will be developed with the successful contractor. Implementation of the construction of the project is scheduled to begin in the 4th quarter of 2012, with clearing and grubbing. Fine grading and actual construction activities will follow immediately after. Landscaping work will commence in the 1st quarter of 2013. All project activities are expected to be closed out in the 3rd quarter of 2013. The City will comply with all BOR reporting requirements including filing the SF-425, Federal Financial Report, on a semi-annual basis, submitting semi-annual performance reports and a final report. The City will also ensure that a Mitigation Monitoring and Performance Report is adhered to, if required, as a result of the NEPA review process.

Project Implementation Plan:

Table 4 Project Schedule													
No.	Timeline Major Project Tasks	Quarters 2011				Quarters 2012				Quarters 2013			
		1	2	3	4	1	2	3	4	1	2	3	4
	-- Execute Grant Agreement with BOR												
1.1	Complete Federal Environmental												
	-- NEPA Clearance												
1.2	Design and Permitting												
	-- Develop Plans, Specifications and Estimates												
	-- Prepare Bid Package for construction elements												
1.3	Bidding, Award and Execute Contract												
	Project Kick-Off												
	-- Kick-off Meeting												
	-- Refined Timeline and Expectations Plan												
2	Site Preparation and Mobilization												
	-- Clearing and Grubbing												
	--Rough Grading												
3	Construction and Installation												
	--Fine Grading												
	--Wetlands construction (Amie and Henrietta)												
	--Infiltration area construction												
	--Spreading ground and recycled water irrigation connections												
	--Installation of catch basin trash screens and sump pumps												
	--Construction of rock filtration Berm (Entradero)												
4	--Landscaping												
	Soil Prep, irrigation install, tree and shrub planting												
5	Grant Administration, Reports, Reimbursements												
	--Project Completion and grant close out												

Permits and Process: The City anticipates the following permits will need to be obtained for the project. No delays or obstacles are expected as a result of the permitting process.

1) Encroachment permit for the contractor(s). This permit will be issued by the City of Torrance in order for the contractors to conduct work in the public right of way including the storm drain inlets and for water monitoring and soil boring samples. The process will entail payment of a $100 fee and filing paperwork as to the locations where the work will take place.

2) A construction permit from the Los Angeles County Flood Control District. The process will require review of plans, agency authorization and payment of permitting fees.

3) A construction permit from the Regional Water Control Board. The process will require review of plans, agency authorization and payment of permitting fees.

Subcriterion No. F3—Performance Measures
Points may be awarded to proposals that provide support for the development of performance measures to quantify actual project benefits upon completion of the project.
Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (i.e., water saved, marketed, or better managed, or energy saved). For more information calculating performance measure, see Section VIII, A.1.

Performance Measure for Quantifying Post-Project Benefits
All WaterSMART Grant applicants are required to propose a "performance measure" (a method of quantifying the actual benefits of their project once it is completed). Actual benefits are defined as water actually conserved, marketed, or better managed as a direct result of the project. A provision will be included in all assistance agreements with WaterSMART Grant recipients describing the performance measure, and requiring the recipient to quantify the actual project benefits in their final report to Reclamation upon completion of the project.

The following performance measures will be quantified after the Stormwater Basin Recharge and Enhancement project is complete:

Performance Measure A.2. Measuring Devices
Irrigation measuring: Amount of potable water conserved. This will be measured by the reduction of potable water used to irrigate fields at Entradero Basin.
Pre-project estimations of baseline data: Pre-project use of potable water will be measured using historical water consumption data. Post-project water measurement (deliveries or consumption) data will be compared to pre-project water uses. After recycled water replaces potable water for irrigation the reduced potable water usage will be documented. Water meter data for the site will be collected prior to the project and after the project completion to provide a before and after potable water usage amount.

Performance Measure A.5. Groundwater recharged

Pre-project estimations of baseline data: to be determined by historic discharges to the Herondo Storm Drain from Torrance.

Post-Project measure: Reduction in discharges to the Herondo Storm Drain from Torrance.

The City will compare pre-project and post-project changes (i.e., amount, duration, and timing) of discharges to the Herondo Drain. Again, the project is designed to virtually eliminate these discharges from the project sites except during heavy rainfall events. The amount of water reduced from flowing to the Herondo Drain will provide one measure of groundwater infiltrated through the basins.

A second measure of Groundwater infiltration resulting from the project can be comprised of annual rainfall and the infiltration rate at each basin. There are many factors that affect groundwater infiltration including the type of soil that filters the water and the depth of the groundwater location. Soil boring tests have been conducted to determine the infiltration rate at two separate locations at each site.

Performance Measure No. B.2. —Increasing Energy Efficiency in Water Management
The methodology for calculating the quantity of energy savings resulting from the water management improvements will be to collect pre-project and post-project pumping requirements from the low flow diversion station from the Herondo Storm Drain.

The measures of energy saved will be comprised from two sources:

- The amount of potable water conserved at Entradero Basin/Park using the energy calculation for importing water (detailed on pages 25-26). Pre-and post-project potable (imported) water consumption will be measured.
- The amount of energy saved due to less pumping required from the Herondo Drain (detailed on pages 25-26.) Pre and post project pumping from the Herondo Drain will be compared.

Performance Measure No. C.—Projects that Benefit Endangered Species and/or Critical Habitat.
The project will address a critical habitat and recovery plan to reclassify the Least Bell's Vireo from endangered to threatened status so that it is no longer in danger of extinction. The wetlands created by this project are projected to improve the status of the species by providing a protective riparian habitat that will promote Vireo population expansions and recolonization. The City's naturalist will document sightings of the endangered species at the project sites.

Performance Measure No. D.— Projects that Establish a Water Market
Pre-project and post-project groundwater levels in the West Coast Groundwater Basin will be measured. Groundwater levels are tracked by the Water Replenishment District. The groundwater replenishment provided in this project adds to the Conjunctive Use program that involves the storing of surplus surface water (urban runoff, in this case) into the underground aquifers and extracting the supply during a drought or other water emergency. This is a "big picture" measure of groundwater conjunctive use potential for all the water markets within the West Basin.

Performance Measure No. E.- Improved water quality of an impaired water body, the Santa Monica Bay. The project will enable Torrance to reduce bacteria that enters the Santa Monica Bay from Torrance. Pre-project bacterial levels have been monitored at the Herondo Drain site at regular intervals by the LACDPW. Post-project levels will also be collected. ***This will be the source for pre-project (baseline) and post-project performance measures.*** This project addresses a serious problem in the Santa Monica Bay. The stormwater is rainwater plus anything the rain carries along with it. For example, in urban areas, rain from roofs or collected

on paved areas is carried away through a system of gutters, pipes, and culverts. Storm water runoff flows directly into the City's storm drain system via street gutters, the detention basins this flow in turn discharges into the Pacific Ocean. Two important issues for storm drain management are to ensure adequate capacity necessary to collect and carry stormwater to avoid flooding, and to reduce pollutants discharged into rivers and the Pacific Ocean. In urbanized areas such as Torrance, vegetation and top soil have been replaced by a high percentage of impervious surfaces such as buildings, roads, sidewalks, and parking lots. Urban storm water run-off occurs when rainfall that would have been absorbed by groundcover or soil drains into storm drain facilities. In areas with extensive impervious surface coverage, the runoff can contain significant contaminants. This project will reverse the trend of sending contaminated stormwater to the ocean and naturally filter it through groundwater infiltration.

Significant measurable improvements in the bacteria levels entering the Santa Monica Bay are expected to result from this project. Currently all stormwater flows from the three project sites dump into the ocean via the Herondo Storm Drain. The most concentrated bacteria levels occur during times of little or no rainfall. After the project site basins are modified to filter and detain stormwater only the heaviest rainfall events will generate flows to the Herondo Drain, and these flows will likely be highly diluted.

Evaluation Criterion G: Connection to Reclamation Project Activities (4 points)
Up to 4 points may be awarded if the proposed project is in a basin with connections to Reclamation project activities. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.

Project connection to BOR:
(1) How is the proposed project connected to Reclamation project activities?
There is a direct link from this project to a Bureau of Reclamation project at the West Basin Municipal Water District. West Basin is partnered with BOR for the Anza Avenue Recycled Water Lateral pipeline. This will convey water to Entradero Basin.

(2) Does the applicant receive Reclamation project water?
This project will enable the City of Torrance to utilize Recycled Water through the BOR Anza Avenue pipeline at Entradero Park/Basin.

(3) Is the project on Reclamation project lands or involving Reclamation facilities?
The project is not located on Reclamation lands or facilities.

(4) Is the project in the same basin as a Reclamation project or activity?
Yes, this project is located in the West Basin along with the Anza Avenue Recycled Water Lateral Pipeline.

(5) Will the proposed work contribute water to a basin where a Reclamation project is located?
Yes, the project will contribute to groundwater recharge in a basin where a Reclamation project is located.

G. Environmental Compliance

To allow Reclamation to assess the probable environmental impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the requirements of the NEPA, ESA, and NHPA.

The City has completed the California Environmental Quality Act process for this project. The three basins were separately filed for Class 2 Categorical Exemptions under CEQA, and all basins received the exemptions on October 3, 2008, based on the fact that the projects are for restoration of areas found within an existing water detention basin to improve infiltration and decrease water runoff for a regional benefit. Copies of Each Notice of Exemption can be found after the following ten responses.

(1) Will the project impact the surrounding environment (i.e., soil [dust], air, water [quality and quantity], animal habitat, etc.)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

Although some earthwork will be required to construct wetlands, a berm, and irrigation areas, this will not have detrimental impacts to soil or air quality (excessive dust). Water quality of the stormwater flowing into the basins is anticipated to improve as a result of the project. Bacteria will be reduced by removing trash and treating the stormwater through wetlands treatment and spraying grounds that will utilize sunlight (UV) to kill bacteria. The enhanced basins and new constructed wetlands are anticipated to provide habitat for a number of migrating birds on the Pacific Flyway.

(2) Are you aware of any species listed or proposed to be listed as a Federal endangered or threatened species, or designated Critical Habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

The Least Bell's Vireo is on the Federal Endangered Species List. This small bird has been sighted in other constructed wetlands in the Torrance area. It is anticipated that the new wetlands created by this project will be suitable and inviting to the species and the new plantings, when matured, will provide nesting grounds.

(3) Are there wetlands or other surface waters inside the project boundaries that potentially fall under Federal Clean Water Act jurisdiction as "waters of the United States?" If so, please describe and estimate any impacts the project may have.

No. This project will construct new wetlands.

(4) When was the water delivery system constructed?

As an older city, most of the City's utility infrastructure was first constructed during a period of rapid growth in the 1960s. The stormwater detention basins have been in use in Torrance since the 1990s.

(5) Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

The project will replace a potable water irrigation system at Entradero Basin and Park with a recycled water irrigation system. This project will connect the basin to a BOR recycled water pipeline known as the Anza Avenue Lateral.

(6) Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

No

(7) Are there any known archeological sites in the proposed project area?

No

(8) Will the project have a disproportionately high and adverse effect on low income or minority populations?

No

(9) Will the project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

No

(10) Will the project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

No, the project will entail removal of non-native and invasive weeds at the project sites.

ORIGINAL FILED

City of Torrance, Community Development Department OCT 03 2008 Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503 (310) 618-5990

Notice of Exemption

LOS ANGELES, COUNTY CLERK

TO:

COUNTY CLERK
LOS ANGELES COUNTY
ENVIRONMENTAL FILING DIVISION
12400 E. IMPERIAL HWY, RM 2001
NORWALK, CALIFORNIA 90650

FROM:

CITY OF TORRANCE
3031 TORRANCE BOULEVARD
TORRANCE, CALIFORNIA 90503

PROJECT IDENTIFICATION AND LOCATION

PROJECT TITLE AMIE DETENTION BASIN RESTORATION

PROJECT LOCATION (SPECIFIC) Property north of Spencer Street between Roslin Avenue and Madison Street

PROJECT LOCATION (CITY) Torrance PROJECT LOCATION (COUNTY) Los Angeles

PROJECT DESCRIPTION

Description of Nature, Purpose, and Beneficiaries of Project: The project involves rehabilitation of a City of Torrance detention basin that discharges to the Herondo Stormwater drain, then conveys the runoff into the Santa Monica Bay, a SWRCB impaired water body. The rehabilitation will involve the cleaning and overlay of existing concrete area with shot-crete, 3 trash interceptors and concrete bridges with culverts, a crushed aggregate access road around the base's perimeter, relocation of existing pumps, an infiltration basin, a 1.5" irrigation line to use water from the basin to irrigate the newly introduced native vegetation Marsh-like and Semi-Wet Zone landscaped areas. This rehab is expected to result in reduction of stagnant water (improvement in vector control), reduction of bacterial concentrations (via treatment of wetlands and infiltration), decrease in the amount of runoff (via infiltration Basins) and improvements in aesthetics.

NAME OF PUBLIC AGENCY APPROVING PROJECT Torrance

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT Public Works Department, John C. Dettle, PE

This project is exempt from CEQA under the following authority: (check one)

☐ Ministerial (Sec. 21080 (b)(1); 15268);

☐ Declared Emergency (Sec. 21080 (b)(3); 15269(a));

☐ Emergency Project (Sec. 21080 (b)(4); 15269(b)(c));

☐ Statutory Exemption

State Code Number: _____

☒ Categorical Exemptions

State Class: Class 2 Sections #: 15302(c)

☐ No Possibility of Physical Impact

REASON WHY PROJECT IS EXEMPT The project is restoration of areas found within an existing water detention basin to improve infiltration and decrease water runoff for a regional benefit.

CONTACT PERSON Gregg Lodan, AICP TELEPHONE NUMBER 310-618-5990 EXTENSION

SIGNATURE TITLE Planning Manager DATE 10.3.08

☐ Signed by Lead Agency
☐ Signed by Applicant

DATE RECEIVED FOR FILING AT OPR

7/00

ORIGINAL FILED

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503 (310) 618-5990

OCT 0 3 2008

Notice of Exemption

LOS ANGELES, COUNTY CLERK

TO:

COUNTY CLERK
LOS ANGELES COUNTY
ENVIRONMENTAL FILING DIVISION
12400 E. IMPERIAL HWY, RM 2001
NORWALK, CALIFORNIA 90650

FROM:

CITY OF TORRANCE
3031 TORRANCE BOULEVARD
TORRANCE, CALIFORNIA 90503

PROJECT IDENTIFICATION AND LOCATION

PROJECT TITLE HENRIETTA DETENTION BASIN RESTORATION

PROJECT LOCATION (SPECIFIC) Property west of Henrietta Street between Edgemere Drive and Sara Drive

PROJECT LOCATION (CITY) Torrance PROJECT LOCATION (COUNTY) Los Angeles

PROJECT DESCRIPTION

Description of Nature, Purpose, and Beneficiaries of Project: The project involves rehabilitation of a City of Torrance detention basin that discharges to the Herondo Stormwater drain, then conveys the runoff into the Santa Monica Bay, a SWRCB impaired water body. The rehabilitation will involve the introduction of 4 fenced viewing platforms (one with a pergola) 2 trash interceptors and basin inserts, an infiltration basin and outlet structure, a crushed aggregate access road, a sump pump and a 1.5" recycled irrigation pipe, as well as the introduction of native vegetation and Marsh-like landscaped areas. This rehab is expected to result in reduction of stagnant water (improvement in vector control), reduction of bacterial concentrations (via treatment of wetlands and infiltration), decrease in amount of runoff (via infiltration Basins) and improvements in aesthetics and public access of areas for educational uses for field trips and pre-scheduled group visits.

NAME OF PUBLIC AGENCY APPROVING PROJECT Torrance

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT Public Works Department, John C. Dettle, PE

This project is exempt from CEQA under the following authority: (check one)

☐ Ministerial (Sec. 21080 (b)(1); 15268);

☒ Categorical Exemptions

☐ Declared Emergency (Sec. 21080 (b)(3); 15269(a));

State Class: Class 2 Sections #: 15302(c)

☐ Emergency Project (Sec. 21080 (b)(4); 15269(b)(c));

☐ No Possibility of Physical Impact

☐ Statutory Exemption

State Code Number: _____

REASON WHY PROJECT IS EXEMPT The project is restoration of areas found within an existing water detention basin to improve infiltration and decrease water runoff for a regional benefit.

CONTACT PERSON Gregg Lodan, AICP TELEPHONE NUMBER 310-618-5990 EXTENSION

SIGNATURE _____ TITLE Planning Manager DATE 10.3.08

☐ Signed by Lead Agency
☐ Signed by Applicant

DATE RECEIVED FOR FILING AT OPR

7/00

ORIGINAL FILED

City of Torrance, Community Development Department Jeffery W. Gibson, Director
3031 Torrance Blvd., Torrance, CA 90503 (310) 618-5990

OCT 0 3 2008

Notice of Exemption

LOS ANGELES, COUNTY CLERK

TO:

COUNTY CLERK
LOS ANGELES COUNTY
ENVIRONMENTAL FILING DIVISION
12400 E. IMPERIAL HWY, RM 2001
NORWALK, CALIFORNIA 90650

FROM:

CITY OF TORRANCE
3031 TORRANCE BOULEVARD
TORRANCE, CALIFORNIA 90503

PROJECT IDENTIFICATION AND LOCATION

PROJECT TITLE ENTRADERO DETENTION BASIN RESTORATION

PROJECT LOCATION (SPECIFIC) Property as bounded by Towers Street (north), Ronald Avenue (west), Halison Street (south) and Entradero Ave/Sturgess Drive (east)

PROJECT LOCATION (CITY) Torrance PROJECT LOCATION (COUNTY) Los Angeles

PROJECT DESCRIPTION

Description of Nature, Purpose, and Beneficiaries of Project: The project involves rehabilitation of a City of Torrance detention basin that discharges to the Herondo Stormwater drain, then conveys the runoff into the Santa Monica Bay, a SWRCB impaired water body. The rehabilitation will involve the introduction of one viewing platform with a pergola, 3 trash interceptors and basin inserts, a crushed aggregate walking trail around the basin with a 1.5" recycled irrigation pipe below the trail, 2 berms along separate baseball fields, 2 pedestrian bridges, an infiltration Basin and the introduction of native vegetation landscaped areas. This rehab is expected to result in reduction of stagnant water (improvement in vector control), reduction of bacterial concentrations (via infiltration basin), decrease in amount of runoff (via infiltration Basins) improvements in aesthetics and public access of areas for recreational uses.

NAME OF PUBLIC AGENCY APPROVING PROJECT Torrance

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT Public Works Department, John C. Dettle, PE

This project is exempt from CEQA under the following authority: (check one)

☐ Ministerial (Sec. 21080 (b)(1); 15268);

☐ Declared Emergency (Sec. 21080 (b)(3); 15269(a));

☐ Emergency Project (Sec. 21080 (b)(4); 15269(b)(c));

☐ Statutory Exemption

State Code Number: _____

☒ Categorical Exemptions

State Class: Class 2 Sections #: 15302(c)

☐ No Possibility of Physical Impact

REASON WHY PROJECT IS EXEMPT The project is restoration of areas found within an existing water detention basin to improve infiltration and decrease water runoff for a regional benefit.

CONTACT PERSON Gregg Lodan, AICP TELEPHONE NUMBER 310-618-5990 EXTENSION

SIGNATURE | TITLE Planning Manager | DATE 10.3.08

☐ Signed by Lead Agency
☐ Signed by Applicant

DATE RECEIVED FOR FILING AT OPR

7/00

SECTION 2: REQUIRED PERMITS AND APPROVALS

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

The City anticipates the following permits will be required for the project:

1) Encroachment permit for the contractor(s). This permit will be issued by the City of Torrance in order for the contractors to conduct work in the public right of way including the storm drain inlets and for water monitoring and soil boring samples. The process will entail payment of a $100 fee and filing paperwork as to the locations where the work will take place.

2) A construction permit from the Los Angeles County Flood Control District. The process will require review of plans, agency authorization and payment of permitting fees.

3) A construction permit from the Regional Water Control Board. The process will require review of plans, agency authorization and payment of permitting fees.

SECTION 3: FUNDING PLAN AND LETTERS OF COMMITMENT

Describe how the non-Reclamation share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability.
Project funding provided by a source other than the applicant shall be supported with letters of commitment from these additional sources. This is a **mandatory requirement**. Letters of commitment shall identify the following elements:

(1) The amount of funding commitment
(2) The date the funds will be available to the applicant
(3) Any time constraints on the availability of funds
(4) Any other contingencies associated with the funding commitment
Commitment letters from third party funding sources should be submitted with your project application. If commitment letters are not available at the time of the application submission, please provide a timeline for submission of all commitment letters. Cost share funding from sources outside the applicant's organization (e.g., loans or state grants), should be secured and available to the applicant prior to award.

(1) How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).

The City will provide its cost share contribution through: Developer Impact Fees ($287,587), Sewer Enterprise Funds ($224,843) and General Revenue Funds ($261,436).

(2) Describe any in-kind costs incurred before the anticipated project start date that you seek to include as project costs. Include:

None anticipated

(a) What project expenses have been incurred

A consultant was procured to complete the pre-design report and preliminary cost estimates in 2007. This work was completed in 2008 and published in a Carollo Pre-Design Report.

(b) How they benefitted the project

The hydraulic study, recommend actions, pre-design and preliminary cost estimates contained in the Carollo Pre-Design Report have been a critical building block in order to launch the project. The report was pivotal in helping the City secure a $3.3 million dollar grant award from the Santa Monica Bay Restoration Commission.

(c) The amount of the expense

$250,000

(d) The date of cost incurrence

The costs were incurred in 2007-2008.

(3) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.

This request for funding through the Bureau of Reclamation will secure the last segment of funding (6.8% total project costs) needed to complete this project. The funding secured thus far toward the $4,411,366 total project cost includes:

1) $3,337,500 from the State of California Proposition 84.

- The STATE WATER RESOURCES CONTROL BOARD approved the City of Torrance's Stormwater Basin Enhancement Program for funding from a grant provided by the **SANTA MONICA BAY RESTORATION COMMISSION (SMBRC)** through the Proposition 84 Clean Beaches program. This action was formalized by the board on April 15, 2010 via **RESOLUTION NO. 10-05** (attached).
- The grant agreement (#10-652-554) has been fully executed.
- The agreement specifies that the work will be completed by February 28, 2013.

2) The applicant will provide $773,866 derived from the following sources: Developer Impact Fees ($287,587), Sewer Enterprise Funds ($224,843) and General Revenue Funds ($261,436).

(4) Describe any funding requested or received from other Federal partners. Note: Other sources of Federal funding may not be counted towards the applicant's 50 percent cost share unless otherwise allowed by statute.

None

(5) Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.

There are no pending funding requests.

Please include the following chart to summarize your non-Federal and other Federal funding sources. Denote in-kind contributions with an asterisk (*). Please ensure that the total Federal funding (Reclamation and all other Federal sources) does not exceed 50 percent of the total estimated project cost.

Table 5
Funding Plan

Funding Sources	***Funding Amount***
Non-Federal Entities	
1. State of California State Water Control Resources Board	$3,337,500
2. City of Torrance, Developer Impact Fees, Sewer Enterprise Funds and General Revenue Funds	$773,866
Non-Federal Subtotal:	$4,111,366
Other Federal Entities	None
Requested Reclamation Funding:	$300,000
Total Project Funding:	**$4,411,366**

Funding Commitment Letter follows on the next page.

bay restoration commission

STEWARDS OF SANTA MONICA BAY

santa monica bay restoration commission ~ 320 west 4th street, ste 200; los angeles, california 90013
213/576-6615 phone ~ 213/576-6646 fax ~ santamonicabay.org

January 18, 2011

Bureau of Reclamation
Michelle Maher, Mail Code: 84-27810
Denver Federal Center
6th Avenue and Kipling Street
Denver, CO 80225

RE: CONFIRMATION OF FUNDING

Dear Ms. Maher:

This letter is to verify that the Santa Monica Bay Restoration Commission, at their April 15, 2010 meeting, adopted **RESOLUTION NO. 10-05**, recommending the City of Torrance's Stormwater Basin Enhancement Program for funding through the Proposition 84 Santa Monica Bay Restoration Grant Program. This action was formalized on August 3, 2010, buy the State Water Resources Control Board via **RESOLUTION NO. 2010-0034.** I am providing the following information in accordance with the application guidelines for the Bureau of Reclamation's WaterSMART: Water and Energy Efficiency program for which the City of Torrance is applying.

1) The SMBRC has approved up to $3,337,500 to the City of Torrance Stormwater Basin Enhancement Project.

2) The funds will be available the City of Torrance on a reimbursement basis, immediately upon execution of the formal Grant Agreement with the State Water Resources Control Board.

3) The time constraints on the availability of funds are outlined by the Clean Beaches Initiative Program Guide which states, "It is anticipated that projects will have a three-year period to develop and execute grant agreements, and an additional two years to complete the work, for a five year funding cycle." In this case, 2008-2013.

4) This funding commitment will be subject to the Terms and Conditions of the Grant Agreement between the State Water Resources Control Board and the City of Torrance.

Please contact the Grant Manager, Jack Topel at 213.576.6647 if you have additional questions regarding this funding.

Sincerely,

Dr. Shelley Luce, Ph. D.
Executive Director

bay restoration commission
STEWARDS OF SANTA MONICA BAY
santa monica bay restoration commission ✐ 320 west 4th street, ste 200; los angeles, california 90013
213/576-6615 phone ✐ 213/576-6646 fax ✐ santamonicabay.org

SANTA MONICA BAY RESTORATION COMMISSION
April 15, 2010

Resolution No. 10-05

Resolution to Approve Funding for the City of Torrance
Stormwater Basin Enhancement Program
Through the Proposition 84 Santa Monica Bay Restoration Grant Program

WHEREAS, the *Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84)* was passed by the voters of the State of California in 2006 and makes funding available to the Santa Monica Bay Restoration Commission for projects that protect Santa Monica Bay beaches and coastal waters; and

WHEREAS, the Santa Monica Bay Restoration Commission is established as a National Estuary Program per Section 320 of the Federal Water Quality Act of 1987 (PL 100-4) and is committed to the restoration, conservation, cleanup, protection and enhancement of the Santa Monica Bay and the wise use of the natural resources within its watersheds; and

WHEREAS, the Santa Monica Bay Restoration Commission Governing Board is the governing body of the Santa Monica Bay Restoration Commission; and

WHEREAS, the California Legislature has obligated $18 million of bond monies to this grant program, which is administered by the California State Water Resources Control Board; and

WHEREAS, Proposition 84 provides that the Governing Board of the Santa Monica Bay Restoration Commission, in consultation with the Clean Beaches Task Force, shall determine project eligibility and grant priorities; and

WHEREAS, the Santa Monica Bay Restoration Commission has undertaken a process to solicit and receive project proposals that achieve specific goals and priorities of the Santa Monica Bay Restoration Plan; and

WHEREAS, the staff of the Santa Monica Bay Restoration Commission, the Clean Beaches Task Force's Santa Monica Bay Technical Committee, and other water quality and habitat restoration professionals have reviewed the proposals, established a Recommended Project List (RPL) and forwarded that list to the Governing Board of the Santa Monica Bay Restoration Commission; and

WHEREAS, placement on and approval of the RPL is a commitment on behalf of the Santa Monica Bay Restoration Commission to fund projects, provided individual projects meet all requirements of Proposition 84, and are consistent with adopted regional water quality control plans;

NOW THEREFORE BE IT RESOLVED that the Governing Board of the Santa Monica Bay Restoration Commission approves the following project from the attached Recommended Project List as submitted by the Commission staff:

Up to $3,337,500 (Three million three-hundred thirty-seven thousand five-hundred dollars) to the City of Torrance to improve the Amie, Henrietta and Entradero Detention Basins that drain to the Herondo Stormwater Drain.

BE IT FURTHER RESOLVED that the Governing Board directs Commission staff to forward the project to the State Water Resources Control Board's Division of Financial Assistance to seek the awarding of funds for the project;

BE IT FURTHER RESOLVED that the Governing Board directs Commission staff, upon approval of the project by the State Water Resources Control Board, to develop a grant agreement and work scope for the project and forward said agreement, and all other necessary documents, to the Deputy Director of the Division of Financial Assistance of the State Water Resources Control Board who is authorized to execute grant agreements and amendments on behalf of the State Water Resources Control Board.

BY: _____

Richard Bloom
Chair, Santa Monica Bay Restoration Commission

JANICE HAHN

2400 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-5330

Congress of the United States
House of Representatives
Washington, DC 20515–0536

January 5, 2012

The Honorable Ken Salazar
Secretary
United States Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

Dear Secretary Salazar:

On behalf of the City of Torrance, California, I wish to express my support for the City's grant application for *WaterSMART: Water and Energy Efficiency Grants, Funding Opportunity Number R12SF80049* in the amount of $300,000.00.

Since 2004, the cities of Torrance, Manhattan Beach, El Segundo, Hermosa Beach, Redondo Beach, the County of Los Angeles and Caltrans have worked together to improve the levels of pollutants at the Santa Monica Bay Beaches. Through improved public outreach, source control identification, and improved treatment systems, much has been accomplished. However, much remains to be done. The proposed project will go a long way to improving Total Maximum Daily Loads limits as well as improving aquifer infiltration. Habitat restoration is also a critical component of this project and cannot be overlooked as a great value to this highly urbanized area and region of the State of California.

I trust you are able to give this project every favorable consideration during the review process.

Sincerely,

JANICE HAHN
Member of Congress

DIANNE FEINSTEIN
[illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

United States Senate

WASHINGTON, DC 20510-0504
http://feinstein.senate.gov

January 9, 2012

Ms. Michelle Maher
Grants Officer
Bureau of Reclamation
P.O. Box 25007
Denver Federal Center
Denver CO 80225-0007

Dear Ms. Maher,

I am writing in support of the City of Torrance's application for funding through the Bureau of Reclamation's WaterSMART: Water and Energy Efficiency Grant Program. The City of Torrance is applying for approximately $300,000 against a $4.4 million basin recharge and enhancement project (6.8% of the total project cost).

The project will improve three storm water detention basins and realize three important regional benefits:

- Less polluted water will be discharged into the Pacific Ocean;
- Groundwater will be recharged at the newly constructed wetlands' sites; and
- Important biotic habitats will be expanded and protected inside a highly developed urban area.

I kindly ask that you give the City of Torrance's application every consideration. If I can be of further assistance, please do not hesitate to contact Michael Davies in my Los Angeles office at 310-914-7300.

Thank you for your time and attention to this matter.

Sincerely,

Dianne Feinstein
United State Senator

[illegible]
[illegible]
[illegible]
[illegible]

1

A letter of support from Senator Barbara Boxer was mailed directly to Secretary Salazar.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

DEAN D. EFSTATHIOU, Acting Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

February 3, 2011

IN REPLY PLEASE
REFER TO FILE: WM-7

Ms. Michelle Maher, Grants Officer
Bureau of Reclamation
Denver Federal Center
6th Avenue and Kipling Street
Mail Code 84-27810
Denver, CO 80225

Dear Ms. Maher:

CITY OF TORRANCE STORMWATER BASIN ENHANCEMENT PROGRAM

The Los Angeles County Flood Control District (LACFCD) supports the City of Torrance's (City) Stormwater Basin Enhancement Program. The City owns and operates the Amie, Henrietta, and Entradero Detention Basins, which collectively comprise approximately half of the watershed tributary to the LACFCD's Herondo Storm Drain. The City's Stormwater Basin Enhancement Program proposes to construct trash screens, wetlands treatment, and infiltration basins in the three detention basins to treat and infiltrate dry- and wet-weather runoff from the City. The LACFCD supports the City's efforts to treat its stormwater and urban runoff in advance of discharge into Herondo Storm Drain. The project represents a cost-effective multibenefit project that allows the City to enhance its compliance with the Santa Monica Bay Beaches Bacteria Total Maximum Daily Load and provide open space and wildlife habitat along the Pacific Flyaway as well as groundwater recharge.

We are pleased to support this project and look forward to its development. If you have any questions regarding this matter, please contact me at (626) 458-4300 or ghildeb@dpw.lacounty.gov or your staff may contact Ms. Terri Grant at (626) 458-4309 or tgrant@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

Gary Hildebrand

GARY HILDEBRAND
Assistant Deputy Director
Watershed Management Division

TM:cp
P:\wmpub\Secretarial\2011 Documents\Letters\Support Ltr_City of Torrance.doc\C08405\C11036

WATER REPLENISHMENT DISTRICT
OF SOUTHERN CALIFORNIA

DIRECTORS
SERGIO CALDERON, PRESIDENT
WILLARD H. MURRAY, JR., VICE PRESIDENT
ROBERT KATHERMAN, SECRETARY
ALBERT ROBLES, TREASURER
LILLIAN KAWASAKI, DIRECTOR

ROBB WHITAKER, P.E., GENERAL MANAGER

February 1, 2011

Bureau of Reclamation
Michelle Maher, Mail Code: 84-27810
Denver Federal Center
6th Avenue and Kipling Street
Denver, CO 80225

Re: City of Torrance Stormwater Basin Recharge and Enhancement Program

Dear Ms. Maher:

The Water Replenishment District of Southern California (WRD) manages groundwater for four million residents in 43 cities of Southern Los Angeles County. The 420 square mile service area uses about 250,000 acre-feet of groundwater per year taken from the aquifers of the Central and West Coast Basins. This equates to nearly 40% of the total demand for water in the area. WRD is involved in groundwater monitoring, safe drinking water programs, combating seawater intrusion and groundwater replenishment operations throughout Southern Los Angeles County. This letter is to express the WRD's support for the City of Torrance's Stormwater Basin Recharge and Enhancement Program.

The City of Torrance owns and operates the Amie, Henrietta and Entradero Detention Basins that make up about half of the watershed for the Los Angeles County's Herondo Storm Drain. The Los Angeles Regional Water Quality Control Board has issued the Santa Monica Bay Beaches Bacterial Total Maximum Daily Load (SMBBB TMDL) and the Herondo Storm Drain has experienced both Dry and Wet Weather exceedences of the SMBBB TMDL. The County of Los Angeles has installed a Low Flow Diversion Pump Station that is vulnerable to large potable water discharges. WRD operates the Goldsworthy Desalter supply well that discharges water to the Amie Retention Basin and Herondo Drain. The City's Stormwater Basin Recharge and Enhancement Program proposes to construct trash screens, wetlands treatment and infiltration basins in the detention basins to treat and infiltrate both Dry and Wet Weather run off to Herondo Storm Drain. WRD is a stakeholder for the City's Stormwater Basin Recharge and Enhancement Program, as both the agency in charge of groundwater recharge and the owner of the Goldsworthy Desalter supply well, and is very much supporter of this project. WRD recognizes the benefit of groundwater recharge and the Best Management Practices

proposed in the detention basins. This project offers multiple benefits for the region and to WRD.

Sincerely,

Robb Whitaker, P.E.
General Manager

17140 S. Avalon Blvd., Suite 210, Carson CA 90746 310-217-2411 www.westbasin.org

January 31, 2011

Bureau of Reclamation
Michelle Maher, Mail Code: 84-27810
Denver Federal Center
6th Avenue and Kipling Street
Denver, CO 80225

Dear Ms. Maher:

CITY OF TORRANCE STORMWATER BASIN RECHARGE AND ENHANCEMENT PROGRAM

The West Basin Municipal Water District (West Basin) is an innovative public agency that provides drinking and recycled water to its 185-square mile service area. West Basin purchases imported water from the Metropolitan Water District of Southern California (MWD) and wholesales the imported water to cities and private companies in southwest Los Angeles County. West Basin is a recognized leader in the production of recycled water and its conservation and education programs are fundamental to West Basin's diverse water portfolio.

West Basin is pleased to support the City of Torrance (City) Stormwater Basin Recharge and Enhancement Project. West Basin operates the Brewer Desalter Well that discharges wastewater to the Amie Retention basin and then to the Herondo Storm Drain. The City's basin Enhancements will construct trash screens, wetlands treatment and infiltration basins to treat and infiltrate both dry and wet weather runoff to Herondo Storm Drain. West Basin has also prepared the on-site plans for use of recycled water at the Entradero Basin baseball fields.

West Basin is a stakeholder for the City's stormwater basin improvements as both the owner of the Brewer Desalter Well and the regional supplier of recycled water. We recognize the benefit of urban runoff treatment, water conservation, groundwater recharge, habitat restoration and low impact development proposed in the basins. The project offers numerous benefits to the region.

Sincerely,

Rich Nagel
General Manager

Heal the Bay

1444 9th Street
Santa Monica CA 90401

ph 310 451 1550
fax 310 496 1902

info@healthebay.org
www.healthebay.org

February 9, 2011

Bureau of Reclamation
Michelle Maher, Mail Code: 84-27810
Denver Federal Center
6th Avenue and Kipling Street
Denver, CO 80225

RE: CITY OF TORRANCE STORMWATER BASIN RECHARGE AND ENHANCEMENT PROGRAM

Dear Ms. Maher:

Since 1985, Heal the Bay has been working to make Southern California coastal waters and watersheds, including Santa Monica Bay, safe, healthy and clean. Today, one of the greatest threats facing our coastal waters and watersheds is urban and stormwater runoff.

Heal the Bay supports the City of Torrance's Stormwater Basin Recharge and Enhancement Program. The City owns and operates the Amie, Henrietta, and Entradero Detention basins, which collectively comprise approximately half of the watershed tributary to the Los Angeles County Flood Control District's (LACFCD) Herondo storm drain. The City's Stormwater Basin Enhancements include trash screens, wetlands treatment, and infiltration basins in the three detention basins to treat and infiltrate dry- and wet-weather runoff from the City. This is a multi-benefit project with regional benefits. We are pleased to support this project and look forward to its development.

Sincerely,

Mark Gold

Mark Gold, D.Env.
President

CITY OF
TORRANCE

FRANK SCOTTO
MAYOR

February 1, 2011

Bureau of Reclamation
Michelle Maher, Mail Code: 84-27810
Denver Federal Center
6th Avenue and Kipling Street
Denver, CO 80225

RE: CITY OF TORRANCE STORMWATER BASIN RECHARGE & ENHANCEMENT PROJECT

Dear Ms. Maher:

As Mayor of the City of Torrance, and on behalf of the Torrance City Council, I am requesting your favorable consideration of the Torrance Public Works Department's application for grant funding from the WaterSMART: Water and Energy Efficiency Grant Program.

The City of Torrance owns and operates the Amie, Henrietta and Entradero Detention Basins that make up about half of the watershed for Los Angeles County's Herondo Storm Drain. Our Stormwater Basin Recharge and Enhancement Project proposes to construct trash screens, wetlands treatment, and infiltration basins in three existing detention basins to treat and infiltrate both Dry and Wet Weather runoff. This project represents the most cost-effective opportunity to improve aquifer infiltration, reduce bacteria from entering the Pacific Ocean, and protect these habitats for many sensitive, plants and animals, including Pacific Flyway migratory birds.

The City of Torrance recognizes and supports the regional benefits of urban runoff treatment, water conservation, groundwater recharge, energy efficiency and habitat restoration. This project will achieve these results. It is critical for us to secure the remaining funds to launch and complete this important project. Your consideration of our request is truly appreciated.

Sincerely,

Frank Scotto
Mayor

FS:maw

3031 Torrance Boulevard • Torrance, California 90503 • Telephone 310/618-2801

Printed on Recycled Paper

J. Official Resolution

RESOLUTION NO. 2011-103

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TORRANCE APPROVING THE APPLICATION FOR GRANT FUNDS FOR THE WATERSMART: WATER AND ENERGY EFFICIENCY GRANTS FOR FISCAL YEAR 2012 GRANT PROGRAM, FUNDING OPPORTUNITY ANNOUNCEMENT NO. R12SF80049.

WHEREAS, the President of the United States and the United States Department of the Interior have provided funds for the WaterSMART Program; and

WHEREAS, the Bureau of Reclamation has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, said procedures established by the Bureau of Reclamation require a resolution certifying the approval of application(s) by the applicant's governing board before submission of said application(s); and

WHEREAS, the applicant, if selected, will enter into an agreement with the Bureau of Reclamation to carry out the development of the proposal.

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF TORRANCE HEREBY:

1. Approves the filing of an application for the WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2012 Grant Program for the City of Torrance; and
2. Appoints the Public Works Director, or his designee, to act as agent with legal authority to enter into the grant agreement, conduct all negotiations, execute and submit all documents including, but not limited to, applications, agreements, payment requests and any other grant required correspondence which may be necessary for the completion of the grant program; and
3. Certifies that the City of Torrance has sufficient matching funds to provide the amount of funding/in-kind contributions specified in the funding plan included in the grant application; and
4. Certifies that the City Council of the City of Torrance has reviewed and supports the proposed application; and
5. Certifies that the City of Torrance will work with the Bureau of Reclamation to meet established deadlines for entering into a cooperative agreement.

INTRODUCED, APPROVED, and ADOPTED this 20th Day of December, 2011.

/s/ Frank Scotto
Mayor Frank Scotto
ATTEST:

/s/ Sue Herbers
Sue Herbers, CMC
City Clerk

APPROVED AS TO FORM:
JOHN L. FELLOWS III, City Attorney

by /s/ Patrick Q. Sullivan
Patrick Q. Sullivan, Assistant City Attorney

TORRANCE CITY COUNCIL RESOLUTION NO. 2011-103

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss
CITY OF TORRANCE)

I, Sue Herbers, City Clerk of the City of Torrance, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Torrance at a regular meeting of said Council held on the 20th day of December, 2011 by the following roll call vote:

AYES:	COUNCILMEMBERS	Barnett, Brewer, Furey, Numark, Rhilinger, Sutherland, and Mayor Scotto.
NOES:	COUNCILMEMBERS	None.
ABSTAIN:	COUNCILMEMBERS	None.
ABSENT:	COUNCILMEMBERS	None.

/s/ Sue Herbers
Sue Herbers, CMC
City Clerk of the City of Torrance

Date: December 22, 2011

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF TORRANCE)

This is to certify that the foregoing is a true and correct copy of the original document.
Dated: December 28, 2011

SUE HERBERS, City Clerk

SECTION 7: BUDGET

Include a project budget that estimates all costs (not just costs to be borne by Reclamation). Include the value of in-kind contributions of goods and services and sources of funds provided to complete the project. The proposal must clearly delineate between Reclamation and applicant contributions.

Table 6

Budget Proposal

Budget Item Description/ Unit	Computation		Recipient & State Funding	Reclamation Funding	Total Cost
	$/Unit	Quantity			
	$/hour [2]	Hours			
Project Manager	$ 67	400	$ 26,800	$ -	$ 26,800
Associate Engineer	$ 53	900	$ 47,700	$ -	$ 47,700
Operations Supervisor	$ 38	400	$ 15,200	$ -	$ 15,200
Fringe Benefits					
Full-Time Employees	$ 23	1700	$ 39,939	$ -	$ 39,939
Travel					
Supplies/Materials					
Contractual/Construction [1]					
Amie Basin					
Pavement Cutting (LF)	$ 0.77	7248	$ 5,581	$ -	$ 5,581
Demolition (SF)	$ 0.55	9420	$ 5,181	$ -	$ 5,181
Remove grass/ non-native shrubs (SF)	$ 0.70	1642	$ 1,149	$ -	$ 1,149
Excavation (Cubic Yards)	$ 3.89	367	$ 1,428	$ -	$ 1,428
Waste Haul (Cubic Yards)	$ 7.71	367	$ 2,830	$ -	$ 2,830
Access Rd (SF)	$ 1.31	24000	$ 31,440	$ -	$ 31,440
Gravel (Cubic Yard)	$ 29.39	111	$ 3,262	$ -	$ 3,262
Concrete (SF)	$ 2.08	54,000	$ 112,320	$ -	$ 112,320
Landscaping slopes (SF)	$ 1.87	34,600	$ 64,702	$ -	$ 64,702
1 HP Submersible Sump Pump	$ 1.00	220	$ 220	$ -	$ 220
Catch Basin Trash Screens (each)	$ 1,500.00	120	$ 180,000	$ -	$ 180,000
10"CML&C steel pipe(LF)	$ 147.76	370	$ 54,671	$ -	$ 54,671
24" CML&C steel pipe (LF)	$ 280.56	120	$ 33,667	$ -	$ 33,667
10" Buttweld Straight Tee	$ 3,428.37	1	$ 3,428	$ -	$ 3,428
24" Buttweld Straight Tee	$ 12,751.64	1	$ 12,752	$ -	$ 12,752
1.5" PVC pipe (LF)	$ 3.19	500	$ 1,595	$ -	$ 1,595
10" Gate Valve	$ 3,428.37	1	$ 3,428	$ -	$ 3,428
24" Butterfly Valve	$ 5,429.04	1	$ 5,429	$ -	$ 5,429
Valve Box	$ 817.82	2	$ 1,636	$ -	$ 1,636
Misc. Fittings and Supports	$ 11,675.72	1	$ 11,676	$ -	$ 11,676
Pumpstation	$ 35,000.00	1	$ 35,000	$ -	$ 35,000
Constructed Wetland (Acre)*	$ 72,100.00	2	$ 44,200	$ 100,000	$ 144,200
Amie Basin- Construction Sub-total			$ 615,595	$ 100,000	**$ 715,595**

Table 6 continued					
Budget Proposal					
Budget Item Description/ Unit	**Computation**		**Recipient & State Funding**	**Reclamation Funding**	**Total Cost**
	$/Unit	**Quantity**			
Henrietta Basin					
Pavement Cutting (LF)	$ 0.77	2096	$ 1,614	$ -	$ 1,614
Demolition (SF)	$ 0.55	3000	$ 1,650	$ -	$ 1,650
Remove grass / non-native shrubs (SF)	$ 4.00	1642	$ 6,568	$ -	$ 6,568
Access Rd (SF)	$ 1.31	21480	$ 28,139	$ -	$ 28,139
Gravel (Cubic Yard)	$ 29.39	138	$ 4,056	$ -	$ 4,056
Landscaping slopes (SF)	$ 1.87	167,593	$ 313,399	$ -	$ 313,399
Stone Paver Walkway	$ 19.06	1490	$ 28,399	$ -	$ 28,399
1 HP Submersible Sump Pump	$ 1.00	220	$ 220	$ -	$ 220
Catch Basin Trash Screens (each)	$ 1,500.00	120	$ 180,000	$ -	$ 180,000
1.5" PVC pipe (LF)	$ 3.19	500	$ 1,595	$ -	$ 1,595
Misc. Fittings and Supports	$ 160.00	1	$ 160	$ -	$ 160
Constructed Wetland (Acre)	$ 72,100.00	3	$ 116,300	$ 100,000	$ 216,300
Henrietta Basin- Construction Sub-total			$ 682,100	$ 100,000	**$ 782,100**
Entradero Basin					
Remove grass and non-native shrubs (SF)	$ 482.37	8	$ 3,859	$ -	$ 3,859
D4 Dozer Grade, Cut, Fill and Compact (SF)	$ 3.57	7131	$ 5,458	$ 20,000	$ 25,458
Access Rd (SF)	$ 1.31	31220	$ 20,898	$ 20,000	$ 40,898
Gravel (Cubic Yard)	$ 29.39	835	$ 4,541	$ 20,000	$ 24,541
Landscaping slopes (SF)	$ 1.87	329,193	$ 595,591	$ 20,000	$ 615,591
Catch Basin Trash Screens (each)	$ 1,500.00	130	$ 195,000	$ -	$ 195,000
1.5" PVC pipe (LF)	$ 3.19	1800	$ 5,742	$ -	$ 5,742
Misc. Fittings and Supports	$ 575.00	1	$ 575	$ -	$ 575
Entradero Basin- Construction Sub-total	$ 821,163.00		$ 911,663	$ -	**$ 911,663**
Total Construction/Contractual Costs			$ 2,329,359	$ 80,000	$ 2,409,359
Environmental and Regulatory Compliance					
Environmental & inspections(9%)	$ 216,842	1	$ 216,842	$ -	$ 216,842
Other					
Engineering (15%)(Line 4 on SF424C)	$ 361,404	1	$ 361,404	$ -	$ 361,404
Final Design (Line 5 on SF424C)	$ 280,000	1	$ 280,000	$ -	$ 280,000
Construction Management (Line 5 on SF424C)	$ 720,000	1	$ 700,000	$ 20,000	$ 720,000
Grant Reporting (Line 5 on SF242C)	$ 5,000		$ 5,000	$ -	$ 5,000
Total Direct Costs	$ 1,712,885		$ 4,122,243	$ -	$ 4,122,243
Indirect Costs - __%					
Contingencies (12% of Construction)			$ 289,123	$ -	$ 289,123
Total Project Costs			$ 4,111,366	$ 300,000	$ 4,411,366

Budget Narrative Format

Submission of a budget narrative is mandatory. An award will not be made to any applicant who fails to fully disclose this information. The Budget Narrative provides a discussion of, or explanation for, items included in the budget proposal. The types of information to describe in the narrative include, but are not limited, to those listed in the following subsections.

Budget Narrative

Salaries and Wages

The following personnel will contribute to the successful outcome of the proposed project. A detailed breakdown of hours by task for each staff member follows the position descriptions.

Project Manager, John Dettle, PE

400 hours X $67/hour = $26,800

The Project Manager is the City of Torrance's Engineering Manger. His annual salary in this capacity translates to an hourly rate of $67 per hour. The Project Manager will have oversight of final environmental clearance, (Task 1.1), soliciting and reviewing bids for final design and construction elements (Task 1.2), and executing contracts, (Task 1.3). The project manager will approve final designs and the refined Timeline and Expectations Plan, (Task 1.3). He will review the project progress on a monthly basis to ensure that the construction work is on time and within budget according to the Timeline an Expectations Plan, (Tasks 2, 3, and 4).

Associate Engineer, Jeff Kidd, PE

900 hours X $53/hour = $47,700

The Associate Engineer, Jeff Kidd, will provide day-to-day oversight of the synchronized work of the construction contractor, and assist the Project Manager in all of the activities described above. (Tasks 1.1, 1.2, 1.3). The Associate Engineer will review and approve invoices, ensure the project remains on schedule and provide reports and updates to BOR staff. He will have daily contact with the Operations Supervisor who will be at the construction sites on a daily basis. (Tasks 2, 3, 4). The Associate will have primary responsibility for final reports and grant close out (Task 5). Other administrative tasks associated with grant reporting (financial record keeping, filing, copies) are assigned a separate line item as requested.

Operations Supervisor, Steve Robinson

400 hours X 38/hour = $15,200

The Operations Supervisor, Steve Robinson, will be on-site at the basins each day as the main point of contact between the construction contractor and the project management team. He will work closely with the construction foreman to synchronize construction work, anticipate and prevent potential obstacles and delays, and implement the refined Timeline and Expectations Plan. (Tasks 2, 3, and 4).

Table 7
Labor Breakdown by Project Task

Position	Task 1.1	Task 1.2	Task 1.3	Task 2	Task 3	Task 4	Task 5	Total Hours
Project Manger John Dettle	100	100	100	25	25	25	25	400
Associate Engineer Jeff Kidd	100	100	100	150	150	150	150	900
Operations Supervisor Steve Robinson				100	100	100	100	400
Total Hours	200	200	200	275	275	275	275	1700

Fringe Benefits

1,700 hours X $23/hour = $39,939

Fringe Benefits include health, life and worker's compensation insurance, and vacation and sick leave. The average rate for fringe benefits for the three City employees included in this cost estimate is $23 per hour.

Travel

There are no travel costs associated with this project.

Equipment

There are no equipment costs associated with this project outside of the contracted construction elements.

Materials and Supplies

There are no materials and supplies costs associated with this project outside of the contracted construction elements.

Contractual/Construction

The Contractual Construction elements at the three basins are outlined below. These costs were prepared during the Pre-design report completed in 2008. A contingency of 12% has been

added to this project to account for any variations (cost increases) that have resulted since the cost estimates were prepared. As noted in the Project Schedule (Table 4), all work is scheduled to take place within a 2-year period which started in September 2011. Project completion and grant close out by and September 2013. Site Preparation and Mobilization (Task 2) is scheduled to occur during the 4th quarter of 2012. Construction and Installation (Task 3) and Landscaping (Task 4) will follow during the 4th quarter of 2012 and 1st quarter of 2013. The total construction contractual costs are estimated to be $2,409,359. The cost breakdown for each basin site is as follows:

Amie Basin: $715,595

1. Construction of a 2-acre wetland for storm water treatment, which includes several marshes of various depths that support the growth of different wetland plant species. Construction will include the clearing and grubbing of a non-native plants and re-planting with native and wetland-suitable plants and trees.

2. Construction of a 1,000-square-foot infiltration area that will be located at the end of the wetlands treatment.

3. Installation of a one-horsepower, energy-efficient submersible sump pump and 500 linear feet of irrigation pipelines to circulate and oxidize the storm water, provide UV exposure to kill bacteria, and promote wetland growth.

4. Installation of 120 catch basin trash screens.

Henrietta Basin: $782,100

1. The construction of a 3-acre wetland for storm water treatment, which includes several marshes of various depths that support the growth of different wetland plant species. Clearing and grubbing of non-native plants and re-planting with native and wetland-suitable plants and trees will occur. This basin is particularly well-suited for the development of constructed wetlands due to its size and slope which allows water to flow through the wetland toward the infiltration area.

2. Construction of a 1,240-square-foot infiltration area which will be located at the end of the wetlands treatment and prior to the pump station intake.

3. Installation of an energy-efficient, one-horsepower submersible sump pump and 500 linear feet of irrigation pipelines to circulate and oxidize the water, provide UV exposure to kill bacteria, and promote wetland growth.

4. Installation of 120 catch basin trash screens.

Entradero Basin: $911,633

1. The construction of a 15,031-square-foot infiltration area.

2. The installation of a sediment/trash basin formed by a rock-walled berm to capture trash and sediment from the main flood control channel. This berm would be formed as a part of the bridge and road, and trap trash and sediment flowing from the main flood control channel. This berm will effectively provide an initial filtration of the water as it flows in to the basin. ***The Entradero Basin is open to the public and includes public park facilities.***

3. Installation of the new catch basin, containing a media filter, trash and bacteria insert, inside the dog park to capture and treat runoff from this specific area of the site.

4. Installation of 1,800 linear feet of irrigation pipeline and fittings to provide recycled water irrigation to the ball fields and landscaped areas.

5. Installation of 130 catch basin trash screens.

Environmental compliance and other regulatory permitting

9% of construction costs has been included for NEPA compliance and other permitting.

Other Costs

- 15% of construction costs are allocated for Plan Specifications and Project Engineering.
- $280,000 has been budgeted for the Final Design drawings to be based on the pre-design concepts.
- $720,000 has been allocated for construction management.
- $5,000 has been allocated for grant reporting.
- As previously noted, a contingency of 12% of construction costs has been included in this budget to account for any unforeseen cost increases.